State of Washington
Board of Industrial Insurance Appeals

BAIS Replatforming Project (BRP)

Feasibility Study

April 1, 2020

Version 2.0

Prepared by Couloir Consulting

Document Revision History

Version	Date	Description	Name
1.0	3/17/20	First draft for key stakeholder review	Steve Giesecke, Couloir Consulting
2.0	4/01/20	Final version incorporating changes from ESC members	Steve Giesecke
2.1	4/09/20	Added BRP Project Cost estimates table on page 82. (Note: this was taken from the slide desk that was presented at the BRP ESC meeting on 03/27/20)	John Hanson
2.2	4/15/20	Added comments and input from QA review	John Hanson
2.3	4/28/22	Updated schedule dates in section 1.7 to reflect the fact that we deferred the project from 2021-23 to 2023-25.	John Hanson

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1. Executive Summary

The Board of Industrial Insurance Appeals (BIIA) is seeking to modernize its legacy case management system (Board of Appeals Information System [BAIS]). The present system is a patchwork of interfaced applications developed over 20 years ago in dated or difficult to support programming languages by developers who are projecting retirement in the near future. In two years' time, no technical support experienced with the present case management applications will remain on staff. In order to be proactive, before pending retirements occur and the present system can no longer be supported, BIIA initiated the IT investment planning process, beginning with this feasibility study to develop options for system replacement. Legacy system replacement is also discussed and recommended in the agency's Information Technology Road Map.

Influencing factors driving the need for system replacement:

- The existing solution is written in a language (PowerBuilder) that has few available resources. This language is not commonly taught in contemporary computer science courses, making replacement programmers challenging to recruit. Much of the existing programmer workforce focuses on more modern frameworks/languages.
- Agency users must log into multiple systems in order to complete work.
- The current systems make it difficult to access appeal information on line.
- There are many gaps, inefficiencies and redundant processes in existing workflow that the current system cannot address without renovation.
- Full integration (e.g. data, process and function) across BIIA applications is lacking, impacting workflow efficiency.

The BIIA's original strategy was to rewrite the current application code base - from PowerBuilder to .NET and funding was approved for this purpose. Pursuant to internal discussions and consultation with OCIO, including consideration of the potential for replacement with COTS products vs rebuild, the organization pivoted to conduct a feasibility study to consider all relevant legacy system replacement options. This move was driven by the realization that code rewriting/conversion is not a simple nor always a straightforward process and can ultimately result in a ground-up custom design project that entails potentially higher risk. Custom design is also considered and estimated as one evaluated option in this report.

The change in direction to develop a feasibility study represents an improved strategy that will serve to:

- Evaluate all relevant options for replacement, not just recoding
- Increase transparency and take advantage of available expert consulting resources for feasibility study development, quality assurance and project management
- Enable benchmarking with other courts jurisdictions, in addition to completing a comprehensive market survey of relevant commercial offerings
- Improve the quality of IT investment management decisions being made going forward

Additional purposes of the feasibility study are to develop and present vetted high level business requirements that can be used in an eventual procurement, assess solution options for legacy system replacement, estimate relevant costs, propose a project governance structure and to recommend a path forward (i.e. advocate a proposed alternative for system replacement).

Using the information from the Feasibility study, a decision will be made whether to plan an additional work effort during the period of July 2020 to June 2021, or to defer action until the 2021-2023 biennium. If a work effort will be planned for the period after July 2020, then an amended Investment Plan and Technology budget will be produced and approved by the OCIO.

This initiative specifically supports the goals of the Governor's Performance Management System: *Results Washington*, as follows:

- **Results Washington Outcome Measure 5** is to provide/deliver an Efficient, Effective and Accountable Government. Proposed solution will help achieve this objective by:
    - Providing a true end to end, integrated Workers' Compensation case management system, streamlining appeal processing workflow, reducing duplication and engaging industry best practices
    - Improving appeal document/record integrity by enhancing document availability and accessibility not currently afforded by interconnected systems
    - Improving service reliability, timeliness and transparency through a reduction in dropped/lost documents; refiled appeals; event (mediation, hearing, review) responsiveness; and improved quality of service reporting

This project also directly supports alignment with the primary objectives of the *State Enterprise Technology Strategic Plan and Architecture*, as follows:

- **Efficient and Effective government**: Legacy system replacement with a proven COTS-SaaS offering will allow the Board to pursue brokered service options, create constituent focused portals, increase access to open data and consolidate common technology and services.

- **Accountable IT Management**: This project has the potential of improving visibility into alignment of the IT investment with the enterprise mission, maturing BIIA project management and related practices, and strengthening business driven governance.

- **Enterprise Architecture**: This initiative will offer BIIA the opportunity to evaluate options for shared solutions across the state or business "ecosystems," will allow the agency to identify common business practices[1] that can be supported by shared solutions, modernize its applications and, hopefully, increase capacity to manage and share information.

- **Security**: System modernization will allow BIIA Information Services to proactively assess application security, continuously improve state defenses, and improve policies and standards consistent with OCIO/WaTech standards.

[1] "Allow the agency to identify common business practices that can be supported by shared solutions" is germane to BIIA's path forward. The results of the RFI demonstrated that COTS vendors supporting other judicial jurisdictions can meet the Board's core business requirements.

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1.1 Project Scope

The scope of the BIIA Legacy System Replacement Feasibility Study project is to accomplish the following objectives:

- Provide a roadmap of strategies and next steps to migrate from the dated, locally developed Board of Appeals Information System (BAIS) solution to an integrated, modern case management system
- Make the business case for legacy system replacement based on current agency business needs
- Provide an analysis of configuration options, to support multiple programs needs and workflow processes
- Provide an analysis of Cost/Benefits for relevant solutions in the marketplace
- Provide clear and concise cost and benefit rationale to assist in the investment evaluation process
- Provide an analysis of business, technical and project help and support
- Balance IT portfolio usability with system support/maintenance

Accomplishment of the above objectives will support overarching state and agency goals of procuring and implementing an appeals case management system that best meets BIIA requirements and satisfies the business needs of agency judges and support staff while also identifying a cost effective and fiscally responsible path forward with respect to system modernization and sustainability.

1.2 Problem Statement

The current BAIS is an agency developed system that has met the basic business needs of the Board of Industrial Insurance Appeals for over two decades. However, BAIS' aging architecture places the agency at risk of becoming reliant on an unsupported system in the very near future. An analogue to this situation might be users who continue to use the Windows 7 operating system on their computers. Microsoft ended the popular Windows 7 platform's, including Internet Explorer,[2] support effective January 14, 2020. This means that system changes, improvements and security patches are no longer forthcoming, placing users' computers and data at risk. Performance may also be affected as connections and interfaces to modernized platforms, including internet-based applications, erode or fall out of compliance. Despite Win7 being an enormously successful operating system with dominant market share, loyal users of this interface are now obliged to upgrade to the fully supported version (Win10) or face consequences that could result in data loss, processing time increases and an increased, even crippling, frequency of system errors.

A similar situation confronts BIIA with respect to its present case management system. In addition to its increasing technological obsolescence relative to modern architectures, the present system is characterized by the following constraints and challenges:

- BAIS is written in a programming language, PowerBuilder (PB), that enjoyed a moderate if not strong following historically but offers relatively few available contemporary resources

[2] Internet Explorer (IE) 10 and older

and has limitations with respect to addressing modern requirements such as web connectivity and connection pooling, interfacing middleware/middleware transaction processing, and creating/supporting a rich, web based user interface. Modern systems are developed in languages that are more adept in accommodating new features and supporting multi-tier architecture consistent with software flexibility, adaptability and component reuse.

- Most current system-created notices and Web or Outlook form data population scripts are email driven, an awkward and inefficient interface protocol reflecting an antiquated IT application architecture.
- Business rules are hardcoded vs table driven making modification of business logic difficult. Each change to business requirements results in a significant expenditure of precious programmer resources vs changes that could be made by a system administrator or super-user on a more configurable platform.
- BIIA PB developers are retirement eligible and replacing them will be challenging since entry and mid-level experience programmers generally learn more modern languages/platforms such as .NET, Java/J2EE. Python and C++. In short, there is a limited resource pool of experienced PowerBuilder programmers.
- BIAA staff must log into multiple systems in order to complete assigned work.
- Though dual data entry has been minimized to the extent possible, there are several inefficient processes embedded in existing workflow that impede seamless end-to-end appeal case management.
- The current systems' architecture makes it difficult to access appeal information on line by users and claimants.

1.3 Benefits

The benefits to be gained from replacing the legacy case management system (BAIS) include:

- Aligns with OCIO and enterprise direction of buy vs build, depending on the proposed/accepted option: pursuing the recommended option will modernize an aging legacy platform consistent with the state's movement towards COTS/SaaS[3]
- Increases the health of BIIA's IT portfolio by reducing technical debt (definition: aging technology; prioritizing "quick fix" changes ahead of permanent long-term solutions) and minimizing technical footprint/impact on state resources
- Enables business transformation by engaging industry best practices provided by leading COTS/SaaS solution vendors, depending on proposed/accepted option
- A more modern business rule, table-based architecture that simplifies and streamlines the software/data change process, reducing maintenance costs

1.4 Proposed Solution

The recommended alternative is for Washington State to procure a proven, configurable, commercial end to end court case management system (COTS/SaaS) by the end of CY2020 and to implement the selected solution during the 2021-2023 biennium, in a limited scope pilot project, to prove the selected application meets core BIIA business needs.

[3] One Washington Program Blueprint, June 2018; Technology Deployment Model, One Washington Program Blueprint, June 2019

Pilot Implementation

Recommend a Pilot Implementation prior to purchasing a full term (i.e. licensing, maintenance, option year provisions) contract. Though it will require additional work for a period of time (recommend a 12 month pilot because of the extended life-cycle of WC appeals), only with operating a pilot implementation and processing real appeals on the new platform will the agency learn whether the chosen solution is sufficiently adaptive and configurable to meet its requirements.[4] Prior to implementation, BIIA should stand up the proposed project governance structure[5] and plan for data migration. This – COTS with Pilot Implementation - option represents the lowest risk and highest probability of success, long-term strategy.

Potential issues that will need to be addressed with this alternative or any other path forward:

- Data migration: a data migration plan/strategy needs to be developed and resources applied, if appropriate; data cleansing prior to migration should be considered before being ruled out
- Change management (CM) will be critical given current system attributes (highly customized) and migration to a COTS product (will not meet all the agency's unique needs "out of the box"). The approach to change management should include consideration of: the organization's history, culture and change acceptance/resistance; internal vs external CM resources (depending on need and availability); and budget considerations
- Implementation planning considerations: staffing; training; cutover (immediate or running in parallel); interface management; reporting

1.5 Alternative Implementation Approaches Evaluated

The following alternative solutions were evaluated in the course of this analysis:

1. Rewrite the current system software, converting the code from PowerBuilder to .Net or other modern architecture /language. This was the original agency strategy. The principal negative relative to this option is that it replicates a locally developed system, with all of its faults and inefficiencies while, at the same time, launching a hybrid custom design project that will be very difficult to estimate, and control, in terms of resources, costs and realistic timeline. We say "hybrid custom design" because it will be nearly impossible to simply rewrite the code without making any material changes/improvements, representing a slippery slope on the path to "custom design." Scope creep will be an ever-present risk.

   Refactoring the current system will require a combination of internal staff (some of the most critical of whom are approaching retirement) and outside resources (contractors) that, for any real chance of a successful conclusion, must be retained for the life of the project. Key staff turnover will deeply impact a rewriting or custom design project, aside from the other organic risks associated with these initiatives.

[4] BIIA will also need to adapt its business processes to a new COTS platform which it might view as an opportunity, vs a threat, because the leading COTS products embrace best practice workflows the Board might benefit from by modeling

[5] Please see Section 9, Project Governance

The risk and cost profile of a pure code rewriting project would be significant. At an estimated 857,000 Lines of Code (LOC), using the industry benchmark for *actual* projects (not overly optimistic estimates from staff) of $10/LOC after testing, editing and retesting, and project management, an informed estimated cost of rewriting the code base is staggering. If the efile module or other major components of code can be reused, this estimate will be reduced commensurately.

2. Migration. We define "migration," to distinguish it from the "rewrite" option, as automated code conversion. Software modernization companies perform legacy software conversion using their own conversion software. There are different levels and types of code conversion software that have had variable levels of success. Some modernization companies purport to deliver 80-90% successfully converted software. Even if true, this leaves up to 20% of the code base to be converted manually. Integrating the pieces converted by manual means then becomes a major challenge in itself. Testing the conversion is a huge undertaking and can easily absorb 20% or more of the overall project budget. Because of the need to manually convert a fair portion of the code anyway, this option overlaps with the "rewrite" option which itself overlaps partially with "custom design."

   A best-case scenario, using LOC, assumes an 80% successful auto-conversion rate (which we think is high) and yields a Rough Order of Magnitude (ROM) estimate of $4,524,960.[6]

   A detailed response to the RFI from a software modernization firm estimated the cost to convert the existing code base at $1.96M with $348,000 recurring annual maintenance.

3. Custom Design: build a new system from the ground up. Because of the specialized needs of the Board, this option was considered and developed. However, Custom Design projects in general have a high rate of failure and nearly universal history of cost and schedule over-runs. However, we are aware of a few cases where small scope, fully contained and highly defined custom design projects have succeeded. For custom design projects to succeed, in addition to the aforementioned characteristics of being tightly bounded and highly specified, a core team of high-quality analysts and programmers must be retained for the life of the project. In a very competitive and mobile market for software professionals, this is a most difficult challenge.

   We developed our estimate for custom design by breaking down the business requirements (Appendix D) into complexity categories in terms of number of business rules and unique elements associated with each requirement. In conjunction with the BAIS developers, an estimated Level of Effort (LOE) was estimated for programming each requirement. Performing this exercise, and adding in representative business analyst, testing and project management resources, led to a custom design rough order of magnitude estimate of $3.3M.

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[6] 857,000 X .8 X $3/LOC = $2,057,000 + .2(857,000) X 10 = $3,771,000 + .2(3,771,000) for testing = $4,524,960 [~ rough estimate of the cost of automated conversion (80%) plus manual conversion (20%) plus testing (20% of total cost)]

Another benchmark cost reference for custom design was received in response to the RFI. The custom design cost ranges from this contractor to develop BIIA's requirements was $5M - $16M. This compares to what several states (VA, KS, KY, NV) have paid for custom designed claims and/or appeals case management solutions in their jurisdictions.

4. Commercial off the Shelf Software (COTS). Many court systems are modernizing their legacy systems with COTS solutions. This study specifically explored commercially available court case management systems. We received eleven (11) RFI responses from COTS solution vendors. All indicated they could meet the Board's business requirements, which were included in the RFI solicitation. Some of these vendors proposed courts case management platforms; others proposed "highly configurable 'low code' solutions." Proposed costs were reasonable with a few outliers.

   Results from the RFI are summarized in sections 6, 7 and 11.

1.6 Preferred Solution

The preferred solution is to procure a proven, flexible and configurable commercial off the shelf (COTS) court case management system that can be adapted to BIIA's core requirements. It is not necessary that the solution meet all of BIIA's detailed requirements "out of the box." Leading court case management systems embody/support best business practices that BIIA should consider adopting even if they are not presently in BIIA's appeal processing workflow. It is possible this approach will result in an improved business process after a period of adjustment.

Many of the leading COTS products can be provisioned as Software as Service (SaaS) offerings. SaaS is a method of software delivery and licensing in which software is accessed online via a subscription, rather than bought and installed on individual computers or hosted on onsite servers.

We do not understate nor underestimate the sum of the expected impacts to the organization of acclimatization to a new (COTS) system, given the current highly customized legacy platform. Nonetheless, there are project management strategies, including pilot testing, multi-modal training and change management activities, that can be employed that will reduce the severity of the impacts to the agency. These strategies are discussed later in this report.

The advantages of a COTS-SaaS strategy include:

- Mitigates projected loss of technical staff supporting current technology
- Improves access to appeal information by authorized users
- Improves appeal case management efficiency by reducing remaining paper processes and paper file storage
- Enables faster document filing and delivery of notices
- Facilitates Public Disclosure request responsiveness, including complying with records retention requirements and facilitating retrieval of requested documents
- Increases information transparency
- Creates an opportunity to achieve electronic connectivity with Superior Courts
- More seamlessly automates end-to-end judicial workflow - provides for a fully integrated solution
- Aligns with the state enterprise (e.g. One Washington Program) direction of "buy vs build"

- Sharply reduces, if not negates, the considerable risks inherent to custom design/development projects
- Enables business transformation by engaging/modeling industry best practices provided by the COTS solution vendor
- Increases the health of BIIA's IT portfolio by avoiding technical debt (aging technology; implementing "quick fixes" at the expense of long-term solution implementation) and reduces technical footprint/impact on state IT data and support resources

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Simplified conceptual model

The following diagram graphically depicts a simplified conceptual model for a proposed, modernized system architecture. This graphic depicts an integrated architecture that is envisioned to replace the current, interconnected component model based appeal case management platform. An *integrated* Workers Compensation (WC) Appeals case management solution will improve the performance of the organization in accordance with its mission to effectively adjudicate WC claims appeals across the spectrum of its core workflow.

BRP Conceptual Future Architecture

Superior Court Case Management System (SC-CMS) project

Washington State Administrative Office of the Courts (AOC) oversees a statewide Superior Court Case Management System (SC-CMS) project that has extended modern case management technology to WA State county superior courts and clerk offices. 37 of the 39 counties in the state are participating. We spoke to two early adopter counties about their experiences transitioning to Tyler Odyssey, the SC-CMS vendor/solution. Responses were positive and functional requirements sets are similar to, if not significantly more expansive than, BIIA's. Representative costs for an SC-CMS project are included in this feasibility study. An implementation map of SC-CMS is presented on the following page. This feasibility study is not recommending a particular vendor/solution, however it has established that COTS solutions are available that meet the Board's core case management and document processing requirements.

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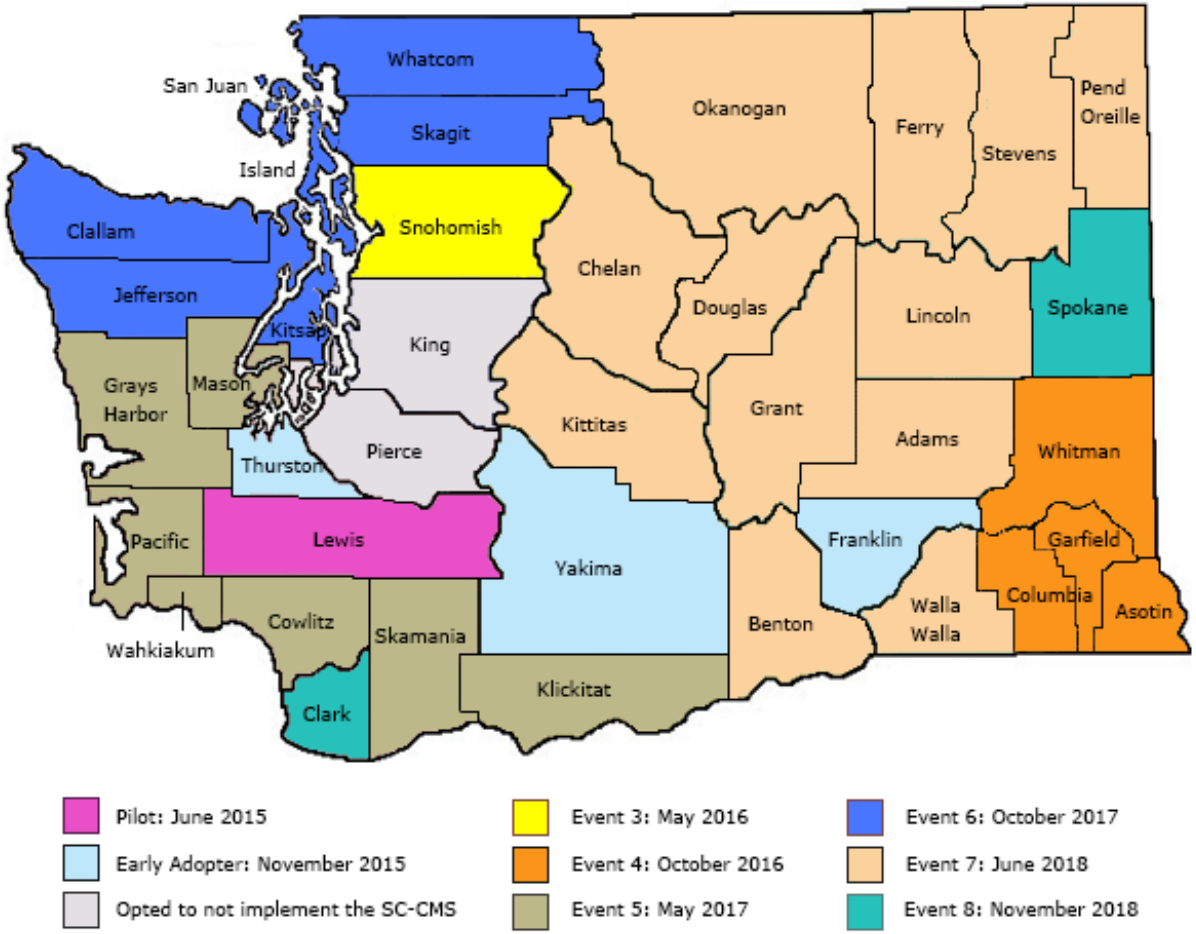
Superior Court Case Management System (SC-CMS) - Implementation Map

- Making Modern Case Management Technology Available to Washington's Superior Courts and County Clerks



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1.7 Proposed Project Schedule

The following project timeline illustrates the high level, project schedule reflecting: early emphasis on requirements definition; mid-term emphasis on selection/procurement of the COTS solution; and a potential pilot project timeline. This schedule will be updated through the course of the project as changes occur.

Phase/Milestone/Deliverable	Target Start Date	Target End Date	Comment
Project Start/End	07/01/2019	06/30/2023	
Investment Plan Approved		12/06/2019	
Requirements	1/06/2020	02/21/2020	
Feasibility Study (FS)	1/06/2020	4/30/2020	
Board Decision on Recommended Option from FS		05/18/2020	
Update Investment Plan		07/15/2020	
Develop Decision Package		~~08/31/2020~~ 08/31/2022	
Approve Decision Package		~~4/30/2021~~ 04/30/2023	
Procurement	~~05/03/2021~~ 05/03/2023	~~08/31/2021~~ 08/31/2023	
Pilot Project Planning	~~07/01/2021~~ 07/01/2023	~~09/30/2021~~ 09/30/2023	
Pilot Project (limited implementation)	~~10/01/2021~~ 10/01/2023	~~06/30/2022~~ 06/30/2024	
Review Lessons Learned from Pilot	~~07/01/2022~~ 07/01/2024	~~07/29/2022~~ 07/29/2024	
"Go – No Go" Decision on Full Implementation		~~07/29/2022~~ 07/29/2024	
Final System Configuration	~~08/01/2022~~ 08/01/2024	~~09/30/2022~~ 09/30/2024	
Other Pre-Implementation Activiites (e.g. full staff training; data migration)	~~08/01/2022~~ 08/01/2024	~~09/30/2022~~ 09/20/2024	
Go Live	~~10/03/2022~~ 10/03/2024	~~06/30/2023~~ 06/30/2025	System Stabilization

Note: In the event the Board decides not to operate a Pilot of the selected solution but elects to progress immediately to full implementation, significantly more procurement and operational related risk (i.e. is this the right solution for the agency?) will be assumed by the agency though the above schedule will be reduced by nine months.

1.8 Summary

All evaluated options have their own risks and costs, compounded by the fact the current in-house designed system is very heavily customized to the Board's decades-old business processes and it will not be possible to replicate this degree of customization. In other words, a COTS solution will not meet *all* of the agency's unique needs directly or even, possibly, after an extended period of implementation and stabilization. However, few systems implementations of any type meet all of an organization's requirements. When selecting a COTS, an organization must often adopt a different mindset with respect to acceptance of standardized business practices. Sometimes, these standard practices are superior to proprietary processes that have been in place for decades but which have run their course.

In other sectors of the economy, such as healthcare, hospital systems initially wanted Electronic Health Record systems (EHR) to adapt to their own unique business processes. Because commercially available EHRs did not, some health care systems attempted to build their own custom electronic medical records systems. Most of these custom design projects failed, some at enormous cost. Successful healthcare systems learned that by adopting the "best of breed" commercially available EHRs that modeled best health care practices for service delivery and quality of care, it would behoove them to *change their business practices to fit the system, rather than the reverse*.[7] That is, they realized that to compete successfully in an increasingly competitive marketplace while also maintaining their accreditation from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), an essential criteria for remaining in business and receiving payment from Government sponsored insurance carriers including Medicare,[8] it was preferable to change rather than go out of business.

Though BIIA is not in competition with other jurisdictions and does not seek accreditation, the agency faces similar challenges with respect to business process change management. In the procurement process, COTS vendors will say they can satisfy the Board's high-level requirements. However, the "devil is in the details" and both parties will need to adapt and compromise, assuming the Board approves the recommendation in this study advocating a COTS solution (with a pilot test period). If the culture of the Board is open to change, including accepting the opportunity to streamline workflow and open up constraints in business process, this will serve as an invaluable first step on the path to software modernization.

During requirements definition, many staff members said they believed the present system was overly complicated, replicating/supporting an overly structured and prescriptive business process. If this is the case, it may be a beneficial though at times a painful process for the organization to accept a more standardized workflow. At the end of the day, the Board's

[7] Since the paper chart mandated a certain workflow, it would be a mistake to assume that a functional electronic health record will adapt to your current workflow. The current workflow based on paper charts is cumbersome and inefficient. An electronic health record and a complete information technology solution for your office will enable a more logical, efficient workflow. (consultant note: In other words, contrary to traditional thinking, the technology now leads the workflow) American Academy of Family Physicians (AAFP.org)

[8] The Joint Commission is one of several organizations approved by CMS to certify hospitals. If a hospital is certified by The Joint Commission, they are deemed eligible to receive Medicare and/or Medicaid reimbursement

mission is to process and adjudicate appeal cases. The workflow is similar to court case management, yet more narrowly focused. This is a principal argument in favor of a COTS solution: rather than rewriting existing code to a more modern language, in the process retaining the overly complicated and restrictive structure of the present platform and workflow, BIIA should consider modernizing and standardizing both platform and process at the same time. This would be the end result of implementing a highly configurable, "best of breed" commercially available system. The pilot, if approved, would represent a stepping stone approach to achieving this objective, partially mitigating the risk of a direct cutover.

If this recommendation is accepted, performing procurement related due diligence will be critical. Benchmarking top rated COTS products in other jurisdictions is essential. Considering shared procurement via a master contracting model should be evaluated.[9] Operating the suggested pilot will help reduce risk and allow the agency to determine if the preliminary solution selection decision was sound.

[9] King County's court case management system contract may be leveraged by other jurisdictions

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2.0 Background and Needs Assessment

2.1 Background

The Board of Industrial Insurance Appeals is seeking to modernize its legacy case management system. The current platform was built in-house over a period spanning more than two decades and represents a highly customized, though difficult to maintain, suite of subsystems connected by e-mail messages and TICK entries tied to multiple applications including Outlook. The two remaining, legacy system PowerBuilder developers are retirement eligible and are projecting leaving the agency within 2 – 3 years. Upon their departure, because of the complexity of the software including embedded business rules and logic, it will become prohibitively difficult to maintain the software even with replacement programmers.

2.2 Business Environment

2.2.1 Mission and Organizational Structure

The Board of Industrial Insurance Appeals (BIIA) was created in 1949 to hear appeals from decisions made by the Department of Labor and Industries (L&I). The mission of the BIIA is to serve the public by resolving appeals in a consistent, impartial, timely, and efficient manner. The Board of Industrial Insurance Appeals was established as a separate and independent agency from L&I to ensure the impartiality and fairness of the dispute resolution process. Most adjudicatory agencies in our state conduct proceedings under the provisions of the Administrative Procedures Act (APA). The BIIA does not follow the less formal APA. The BIIA is required by statute to use the Superior Court Rules of civil procedure and evidence. This makes BIIA proceedings similar to a bench trial in superior court. Hearings are, by law, required to be reported verbatim and transcribed. The BIIA record forms the basis for all subsequent levels of appellate review.

The BIIA has approximately 160 employees located in 10 offices statewide. Office locations are Olympia, Seattle, Lakewood, Spokane, Yakima, Moses Lake, Richland, Vancouver, Everett and Bellingham.

The BIIA generally receives between 11,000 and 14,000 new appeals per year, resulting in approximately 4,500 transcribed events each year. The majority of the transcribed events are less than 8 hours in length. By statute, BIIA hearings are held in the county of the worker's injury, or in the county of residence of the worker, or elsewhere for the convenience of the parties and witnesses.

The Board is directed by the Chief Industrial Appeals Judge who has eight Assistant Chief Industrial Appeals Judges (IAJ) as direct reports. The IAJs, in turn, each supervise multiple appeals judges who work in Olympia and across the state mediating and hearing workers compensation appeals.

In addition, three senior program administrators supervise support staff who are assigned to the judges and handle administrative duties including moving the cases through workflow, scheduling events and making notifications to injured workers and their representatives.

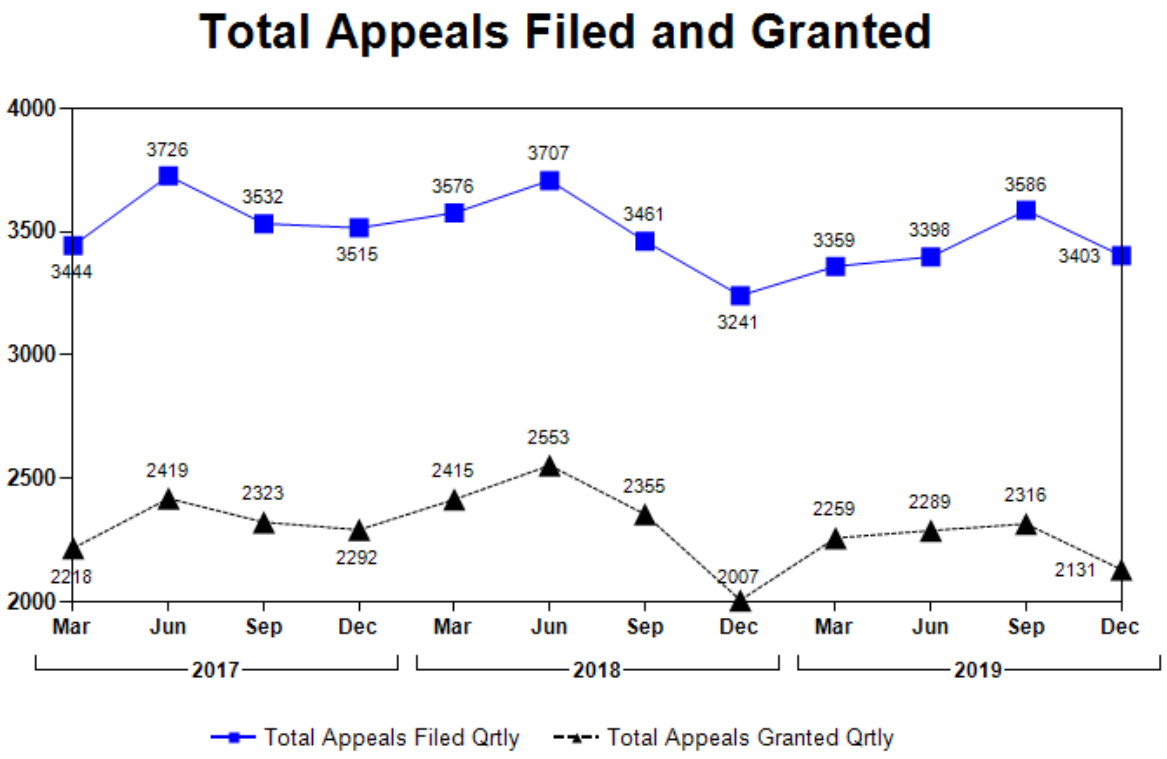
The appeals Review function is conducted by three Board members appointed by the governor. One is a representative of the public and a lawyer, appointed from a list of not less than three

active or judicial members of the Washington State Bar Association. The Washington State Labor Council and the Washington Association of Business must mutually approve the list of names for the public member. This member will also be the chairperson of the three-member Board. The second member is a representative of the majority of workers engaged in employment under the industrial insurance statute (RCW 51.52) and the third is a representative of employers under the same title. Review is the final stage of BIIA appeal though appeals can be further litigated in county superior court.

2.3 Business Process

2.3.1 Volume

Average monthly industrial insurance appeals received equaled 1168 the past three years. Ratio of appeals granted/filed averaged 66% with an average of 766 appeals/month accepted for entry in the dispute resolution process.



2.3.2 Appeal Types

Industrial insurance appeals include the following types:

- Workers' Compensation appeals represent the vast majority of appeals received by the Board

Other types of appeals include:

- Crime Victims
- Employer Premium
- Washington Industrial Safety and Health Act (WISHA)
- Provider

The statute[10] provides for a handful of other case types, which rarely occur. On average less than one per year.

2.3.3 Business Process

This section describes the core business process for processing and adjudicating Workers' Compensation appeals.

There are four primary stages of appeal processing:

- New Appeals
- Mediation
- Hearing
- Review

Superior Court is sometimes referred to as an additional, follow-on appeal stage however this venue is outside the direct purview of the BIIA.

The basic appeals adjudication workflow is illustrated in the following diagram followed, in turn, by a narrative description of the business process and augmented by detailed business process diagrams contained in the appendices.

[10] WAC 263-12-010

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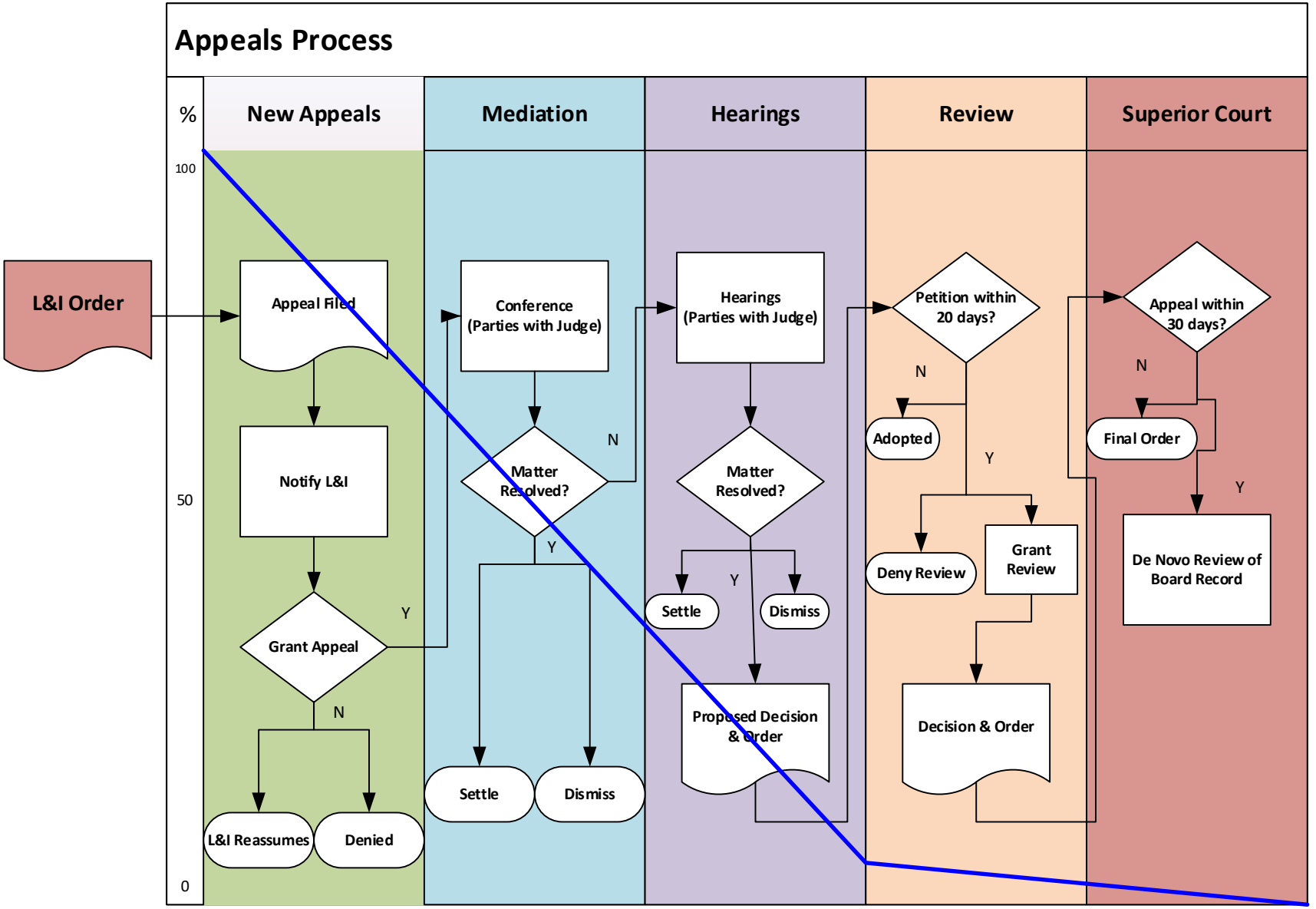

Blue line represents percentage of cases remaining to be resolved by final orders in each stage.
Note the sharp decline in open appeals through the first three stages of the process.

2.3.3.1 New Appeals

When Workers Compensation claims or benefits are denied or granted by the Department of Labor and Industries (L&I), this sets the stage for appeal to the Board of Industrial Insurance Appeals (BIIA). L&I provides instructions to claimants and employers at the bottom of their orders about the rights to appeal.

Workers' Compensation appeals are received via on-line submittal, fax and paper (mail or in-person delivery). More than half of appeals are now submitted by workers or their representatives via one of the New Appeal portals listed at the BIIA internet URL: http://www.biia.wa.gov/Filing.html

In preparing the appeal, Worker, Crime Victim, Provider, L&I, Retrospective Rating Group, Employer and Representative Information is captured (input by the user) on the primary page of the appropriate *Notice of Appeal* web form. One supporting document up to 10 MB in size (e.g. traditional pleading or other document(s) supporting the appeal) can be attached, if the appeal is submitted on-line. Documents can be combined but are still subject to the size restriction. Submitting an appeal to BIIA using the on-line portal is a simple and straightforward process. For those appellants not having internet access, forms are available upon request at BIIA for either mail-in or walk-in delivery. Completion of a form is not required, though, and appeals are regularly received in the form of a letter mailed to the BIIA.

Appeals, whether submitted via the on-line portal, by mail, in person, or fax, are received by the BIIA New Appeals unit. The New Appeals unit supervisor assigns appeals to Judicial Appeals Analysts (JAA) who assign the appeal a docket number and enter additional information into BAIS about the nature of the appeal. The assignment of a docket number prompts BAIS to send the Notification of Appeal ("Transmittal") to L&I. Once that is received by L&I, statutory time limits are triggered within which L&I must decide if it requires any further action of a type permitted by RCW 51.52.060(4). If L&I takes timely further action, L&I returns its record indicating the action taken and the appeal is processed with a reassume or deny order. Alternatively, L&I may return its record with communication that it does not intend to take further action. Where this occurs, the appeal is granted by BIIA unless there are technical problems with the appeal.[11] Notifications of an appeal being denied or granted are sent to relevant parties, including the worker, crime victim, provider, their representative(s), employer and other designated parties in the claim.

The Board has delegated to the judges assigned to the New Appeals unit the authority to authorize issuance of most orders denying appeals. An order denying appeal is issued in appeals where it is determined that the Board lacks jurisdiction. The standard (common) reasons appeals are denied are part of a Word macro (NADeny). On occasion, the reason for denial of the appeal is beyond the scope of the standard macro language. In those instances, a New Appeals Judge drafts a unique order using a different macro (NAShell). The draft order is often reviewed with the BIIA Executive Secretary. If circumstances are particularly complex, the Draft order is referred to the Board area for review and action by one or more Board members

[11] Technical exceptions may include missing data, missed timelines or other issue(s) indicating the Board does not have jurisdiction.

using a process for the "GRR" tab of BAIS's Order Info screen, as that process applies to both grants and denies on the record under the authority of RCW 51.52.080.

If BIIA jurisdiction over the appeal is established, a Jurisdictional History (JH) is compiled by the assigned JAA by running a Word macro that is auto-stored into the e-file as an editable (working) document. JAAs then use L&I systems (LINIIS, ORION) to build the JH based on L&I determinations stored in ORION along with any records submitted with the appeal. This is one of the principal duties of the New Appeals Unit.

The Judicial Appeals Analysts enter appeal information into BAIS and prepare and process orders: granting appeals, denying appeals, reassuming appeals, granting relief on the record, and regarding jurisdiction.

More than 40 percent of incoming appeals are denied in New Appeals or are returned to the Department of Labor and Industries (L&I; or “the department”) when it reassumes jurisdiction.

Principal duties of the JAAs assigned the New Appeals section are centered around completing the following tasks:

- Docketing of new appeals, initial identification of and entry into BAIS all parties to whom notifications will need to be sent, and other tasks attendant to assuring Notifications of Appeal are sent to L&I and that, when the return is received, the appeal is denied or granted.
- For closed dockets, review of notification (process email message) that something has been filed in the docket and determine what, if any, further action or referral may be needed.
- Compiling Jurisdictional Histories from submitted appeal information and gathering relevant information from the Department of Labor and Industries’ source systems (ORION; LINIIS)
- Customer point of contact. The New Appeals unit handles all new appeal inquiries as well as general informational inquiries and other customer inquiries where it cannot be determined if a specific judge is already assigned.

2.3.3.2 Mediation

If the appeal is granted in New Appeals it is processed and referred to Mediation. Mediation represents an informal process with the objective to resolve the appeal to mutual satisfaction of the parties absent the formal legal process inherent to later stages. In mediation, parties are able to discuss the appeal in a relaxed, confidential, and informal setting. If a settlement can be reached in mediation, the parties avoid the uncertainty, expense, and delay of a formal hearing.

After an appeal is granted in New Appeals, a mediation conference will be held in most cases. A mediation conference is an informal meeting of the parties with a mediation judge.
All parties will receive a notice indicating the date, time, and location of the conference. The conference may be held in person or by telephone.

Mediation is not a hearing—witnesses will not be called to testify. An attorney is not required, although the assistance of an attorney may be helpful. The mediation judge may schedule further conferences, if needed.

When a case is granted and referred to Mediation, BIIA schedulers conduct a Mediation Region Code review to determine the geographical setting consistent with the worker's request and schedule the mediation in the Schedule window in BAIS. The case will be assigned a judge who covers the geographical preference of the appealing party in most cases and the mediation is scheduled. Notices of the Mediation Conference are mailed (or a waiver obtained).

The initial Mediation conference is held[12] and, if a result is achieved, four outcomes may occur:

- Dismiss Order Issued – the party that filed the appeal can dismiss it
- Agreement (Order of Agreement of Parties) Issued – the parties agree on a settlement of the claim
- Medical Examination (MEXM) ordered, in which case the doctor's orders will prevail
- No agreement, case referred to the next stage, formal Hearing

In the latter outcome, to ensure confidentiality, the mediator is not allowed to discuss facts of the case with the Hearings judge.

2.3.3.3 Hearings

Hearings represents initiation of the formal stage of appeal processing. BIIA hearings are like trials. The Rules of Evidence and Superior Court Civil Rules apply. Parties must be familiar with these rules in order to ensure that all their testimony and evidence will be admitted at the hearings.

At this point, the appealing party should consider finding an attorney. An experienced attorney will represent L&I or the self-insured employer. An attorney can negotiate with the opposing parties, help obtain necessary witnesses, and make objections.

The judge assigned to the case can help question witnesses, but will not act as an attorney for the parties. The hearings judge must remain neutral and cannot discuss the facts of the case without all parties present.

All parties will receive a notice indicating the date, time, and location of the hearing. The first hearing in a workers' compensation case is usually held either in the county where the injury occurred or the county where the worker lives.

All evidence must be presented at the hearing. The evidence presented at the hearing will be the only basis for the decision at the BIIA or at a higher court. At the hearing, the parties will present their witnesses, who will testify under oath. All testimony will be recorded by a court reporter. In most cases, a doctor will be required to appear in person or by telephone to testify. Doctor's notes and letters may not be received into evidence if a party objects to it. Each party is responsible for arranging for witnesses to testify, and for paying witness fees.

[12] Additional mediation conferences may be scheduled as required

A doctor's testimony is required if a party is requesting or challenging the following benefits:

- Allowance of the claim, or acceptance of medical conditions
- Reopening of the claim for aggravation of an industrially-related condition
- Further proper and necessary medical services
- Payment of unpaid medical bills
- Time-loss compensation
- Loss of earning power
- Permanent partial disability
- Permanent total disability

In workers' compensation, crime victims, and employer premium cases, the appealing party must present evidence first to show that L&I's decision is incorrect.

In a willful misrepresentation case, L&I or self-insured employer must present evidence first.

Prior to hearings, cases may conclude with a settlement or dismissal. A settlement is when all parties are in agreement and it is approved by the judge. At any time the party that filed the dismissal may voluntarily dismiss the appeal. Those cases not dismissed or settled, go onto hearings.

When all hearings are completed and all evidence has been received, the hearings judge will issue a Proposed Decision and Order, which is the hearings judge's decision upon completion of the hearing.

System supported functions of the Hearings process include:

- Judge's work queue/filing cabinet capability including current (two-week look-ahead) assignments, tasks and status of each
- Report generation (e.g. report 204H) of each pending case in Hearings stage by judge assigned and status information on each
- Creation of Status Sheets that display status and case information
- Preparation of order through form automation
    - System supported processes include the preparation/generation of the Order on Agreement of Parties (OAP), Order Dismissing Appeal (dismissal) or Proposed Decision and Order (PDO) resulting from the Hearing
- Notification to parties if no Petition for Review (PFR) filed on a timely basis by appealing party/representative in the form of an Order Adopting PDO

If the worker does not agree with the PDO then he/she may file a PFR and, if done so in a timely manner (within 20 days of receiving PDO), the case enters the Review stage.

2.3.3.4 Review of Proposed Decision and Order (PDO)

Upon receipt of a Petition for Review ("PFR"), the Board places the case in the Review cycle. Here the three BIIA Board Members will review the Hearing judge's decision. RCW 51.52.104 and WAC 263-12-145 set forth the requirements for a Petition for Review.

It is critical the appealing party submit their PFR or seek an extension of the time for doing so within 20 days of receipt of the PDO and include the following information:

- **Title the correspondence: "Petition for Review."**
- The Case Name, BIIA Docket Number, and Department Claim Number (or Firm Number or Citation and Notice Number).
- The reasons the appealing party believes the PD&O is incorrect. State the evidence in the record that supports the petition.
- Any rulings made by the judge that the appealing party thinks are incorrect.
    - A **"**Declaration of Receipt**"** stating the date the PD&O was received.
    - A certificate of mailing for the PFR (to confirm compliance with the filing deadline) may be required

A review judge is assigned to review the record, and make a recommendation to the Board. The Board will vote whether to grant or deny the petition following a review of the record based on the grounds detailed in the Petition for Review and the evidence cited in the record in support thereof. Potential outcomes and actions:

Petition for Review denied

- The Board will issue an "Order Denying Petition for Review." The Proposed Decision and Order then becomes the final order of the Board.
- The Board can also issue an "Order Denying Petition for Review with *Errata* Sheet." In this instance the Board denies review, but corrects a clerical error or errors.

Petition for Review granted

- The Board will issue a Decision and Order. The Board must issue the Decision and Order within 180 days of the date the Petition for Review was filed.

Primary system support processes of the Review cycle include, but are not limited to:

- Preparation/submission of Petition for Review (PFR)
- Capture of PFR filing date/times and flags compliance issues with same (appealing parties have 20 days to file PFR after receiving Proposed Decision and Order (PDO) from previous stage, Hearings.)
- Capturing and adjudicating extension requests by BIIA Executive Secretary
- Review Judge workflow:
    - Case record review
    - Memo and supplemental memo drafting
    - Transmission to Board for review and vote

- Electronic voting by three-member Board on Review Judge's recommendation
- Preparation of draft final Decision and Order (D&O) and Orders Adopting Proposed Decision & Orders
- Process for communicating, receiving and processing requests for translated orders.
- Transmission of order
- Notification of parties
- Preparation/transmission of Certified Appellate Board Record (CABR) if a party opts to appeal to Superior Court

2.3.3.5 Review of Motions to Stay Department Orders Pending Appeal

When an employer appeals an industrial insurance order, the employer has the right to request that the Board stay the effect of the Department order until the appeal is decided. These are called *motions to stay benefits* or *050 stay motions*. The Board places the motion in the work cycle similar to the process of reviewing a proposed decision and order. RCW 51.52.050(2)(b) sets forth the requirements for the motions.

The employer must submit the motion to stay benefits within 15 calendar days of the Board's order granting the appeal. Motions are identified and forwarded to the review work unit. By statute, these motions are expedited. The Board must grant or deny them within 25 calendar days.

A review judge is assigned to review the claim file of the Department of Labor and Industries, and make a recommendation to the Board to grant or deny the motion. The review judge does this in a memorandum. The Board will vote whether to grant or deny the motion. Potential outcomes and actions:

Motion denied

- The Board will issue an "Order Denying Motion to Stay." Order is drafted by review judge or staff. Order must be issued within 25 days of receiving the motion.

Motion granted

- The Board will issue an "Order Granting Motion to Stay." Order is drafted by review judge or staff.

Primary processes of the Review cycle supported by BAIS include, but are not limited to:

- Capture of motion filing date/times and flags compliance issues with same (an employer has 15 days to file motions after the Board issues the order granting the appeal).
- Review Judge workflow:
  - Case record review
  - Memo and order drafting
  - Transmission to Board for review and vote
- Electronic voting by three-member Board on Review Judge's recommendation
- Preparation of final order granting or denying the motions.
- Transmission of order

- Preparation/transmission of Certified Appellate Board Record (CABR) if a party appeals to Superior Court

2.3.3.6 Review of Requests to Stay Abatement Pending Appeal (WISHA Caseload only)

When an employer appeals a safety violation citation to the Board, the employer has the right to request that the Board stay the requirement that the employer abate (cure) the alleged safety hazard until the Board decides the appeal. These requests are called *requests to stay abatement*. The Board places the motion in the work cycle similar to the process of reviewing a proposed decision and order. RCW 51.52.050(2)(b) sets forth the requirements for the motions.

The employer must submit the request to stay abatement with its notice of appeal. These requests are identified in the New Appeals unit. Some are facially defective and decided in the New Appeals section. Those that aren't facially defective are forwarded to the review work unit. By statute, these motions are expedited. The Board must grant or deny them within 45 calendar days.

For requests to stay abatement that are forwarded to the review unit, a review judge is assigned to review the request and exhibits, and make a recommendation to the Board to grant or deny the motion. The review judge does this in a memorandum. The Board will vote whether to grant or deny the motion. Potential outcomes and actions:

Motion denied

- The Board will issue a "Decision and Order on Request to Stay Abatement Pending Appeal." The order will deny the request. Order is drafted by review judge. Order must be issued within 25 days of receiving the motion.

Motion granted

- The Board will issue a "Decision and Order on Request to Stay Abatement Pending Appeal." The order will grant the request. Order is drafted by review judge.

Primary processes of the Review cycle supported by BAIS include, but are not limited to:

- Capture of motion filing date/times and flags compliance issues with same (an employer has 15 days to file motions after the Board issues the order granting the appeal).
- Review Judge workflow:
  - Case record review
  - Memo and order drafting
  - Transmission to Board for review and vote
- Electronic voting by three-member Board on Review Judge's recommendation
- Preparation of final order granting or denying requests.
- Transmission of order.
- Preparation/transmission of Certified Appellate Board Record (CABR), if a party appeals to Superior Court

2.3.3.7 Interlocutory Review

An Interlocutory Review request is filed by a party when they do not agree with an action taken by a Hearings judge. The interlocutory review may be requested at any time during pendency of a case in Hearings prior to the issuance of an Order on Agreement of Parties, Dismissal or Proposed Decision and Order. If after review it is determined the party's request is affirmed, the matter is referred back to the judge for further consideration.

BAIS also supports this process by sending an email to the assigned Assistant Chief Judge (AC), placing the matter in the ACs work queue and in preparing the order.

2.3.3.8 Claim Resolution Structured Settlement Agreements (CRSSAs)

CRSSAs – structured financial settlement agreements - were created as a way for parties to resolve all aspects of an allowed claim, other than medical benefits. Agreements can be filed at any stage of the BIIA's appeals process and even at Superior Court. CRSSAs can also be filed on claims where there are no active appeals pending. The agreements are subject to multiple criteria defined by statute and WAC.[13]

BAIS also supports this process by sending an email to the assigned Assistant Chief Judge (AC), placing the matter in the ACs work queue and in preparing the order.

2.3.3.9 Affidavit of Prejudice

An Affidavit of Prejudice may be filed by an appellant when he or she believes, for any reason, that bias exists in the judicial appeals process. The basic flow for an Affidavit of Prejudice is similar to that for Interlocutory Review. Workflow diagrams are attached describing both processes.

BAIS also supports this process by sending an email to the assigned Assistant Chief Judge (AC), placing the matter in the ACs work queue and in preparing the order.

2.3.3.10 Interest Determination

At the end of the life of an industrial insurance appeal, Administrative Services staff runs the Interest Review Final Orders by Date report. Review of the Board final order is conducted and if the order meets the criteria for interest, the file is made active in the interest window in BAIS. This generates a letter and Certification of Benefits form that is sent to the relevant claims authority (either L&I or the self-insured employer). Once the certification of benefits form is returned, a determination is made whether there are benefits that are subject to interest. When interest is deemed payable, notification is sent to the appealing party's attorney or the appealing party for confirmation of payments and attorney fee information. Interest is calculated and an Order Fixing Interest is issued.

2.3.3.11 Other Appeal Types

Other industrial insurance appeal types processed by BIIA include: Crime Victims; Employer Premium; Washington Industrial Safety and Health Act (WISHA) and Provider appeals. The processing of these types of appeals generally follow the model narrated above and

[13] RCW 51.04.063 describes the terms, conditions and timing requirements associated with Structured Settlement Agreements

diagrammed below with the exception of WISHA appeals. The BIIA also uses a WISHA appeal checklist, generated from information in BAIS, to ensure timeliness, track certification of unions, and track notices to employees.

For WISHA appeals, a separate review for Stay of Abatement (SoA) Motion is conducted by a designated Industrial Appeals Judge experienced in such matters. If a motion for stay of abatement has been filed by the appealing party, the Board assumes responsibility for the appeal and conducts the actions diagrammed on page 12, principally conducting a review whether the abatement stay motion is moot, drafting orders for approval by the board and, if motion is not moot, assigning a Review Judge. In the latter case, the general appeal Review process summarized above is then followed.

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2.4 Business Needs

The following table contains business requirement by title/label. For a complete list and more detailed description of requirements, please see Appendix D.

Title		
Internet Portal and alternate appeal intake modes	Integrated end to end appeal case management – workflow support requirements	Interpretive and Security Services
Automated Intake	The system shall support New Appeals workflow	Larger Monitors/Displays (this is the norm for BIIA staff)
Correspondence/Forms Generation	The system shall support Mediation workflow	Master Address File or an Address Validation API
Case Integration with MS Outlook Email and Calendar	The system shall support New Hearings workflow	On-line Dispute Resolution (ODR)
Docket Number Assignment	The system shall support Review workflow	Reasonable Accommodations
Electronic Document Generation	Advanced Search	
Electronic Signature	Automated Docketing	
Integrated Document Management	Business Rule Management	
Integrated tele/video conferencing	Case Consolidation	
Integrated Scheduling	Digital Recording	
Judicial eBench “Dashboard” GUI	Electronic Document Format	
Jurisdictional History (JH)	Electronic Voting	
Microsoft SQL database compatibility	Facilitated entry of party contact information	
Mobile Access	Financial adjudication	
Multi-language capable	Gender Identification	
Public Records Management – Public Disclosure	Generation of portable print files for off-site production	
	Hearing Judge Assignment	
On-line Dispute Resolution (ODR)	Integration of the New Appeals Judge deny order approval process	
Voice Recognition Software (VRS)	Interest determination and reporting	

Additional requirements:

- Select a solution vendor that shares the Board's values of providing responsive and cost-effective customer service and who has proven through past performance that it will consistently meet project target dates on-time and on-budget for both implementation and support/maintenance
- Enhance reporting and analytics visibility to management and staff, allowing users to create their own ad hoc reports using a reports/analytics solution that interfaces the database
- Comply with NIST and OCIO/WaTech Security Requirements for privacy/security of client information (computer data breach history of vendors should be an evaluation criteria).
- Although not required, FEDRAMP certification is desirable.

2.5 Technical Environment

In accordance with RCW 43.105.375, use of state data center—business plan and migration schedule for state agencies - BIIA migrated its application, data and MS exchange servers to the State Data Center (SDC) in March 2019. BIIA conducts its IT operations utilizing the State Metropolitan Optical Network (SMON),[14] nested within the State Government Network [SGN) & Public Government Network, with respect to managing electronic communications internal and external to state government. BIIA retains one digital tape back-up server for internal BAIS and appeal data file storage purposes for redundancy protection. BIIA relies on SDC application hosting, infrastructure, network, security, communications and Microsoft architecture support and maintenance to support its operations.

The current appeal case management system (BAIS) is written in PowerBuilder with transaction and event communication protocols leveraging basic MS Exchange messaging/MS Outlook (email) features and capabilities. MS SQL 2014 serves as the data base platform for BAIS, hosted at the SDC.

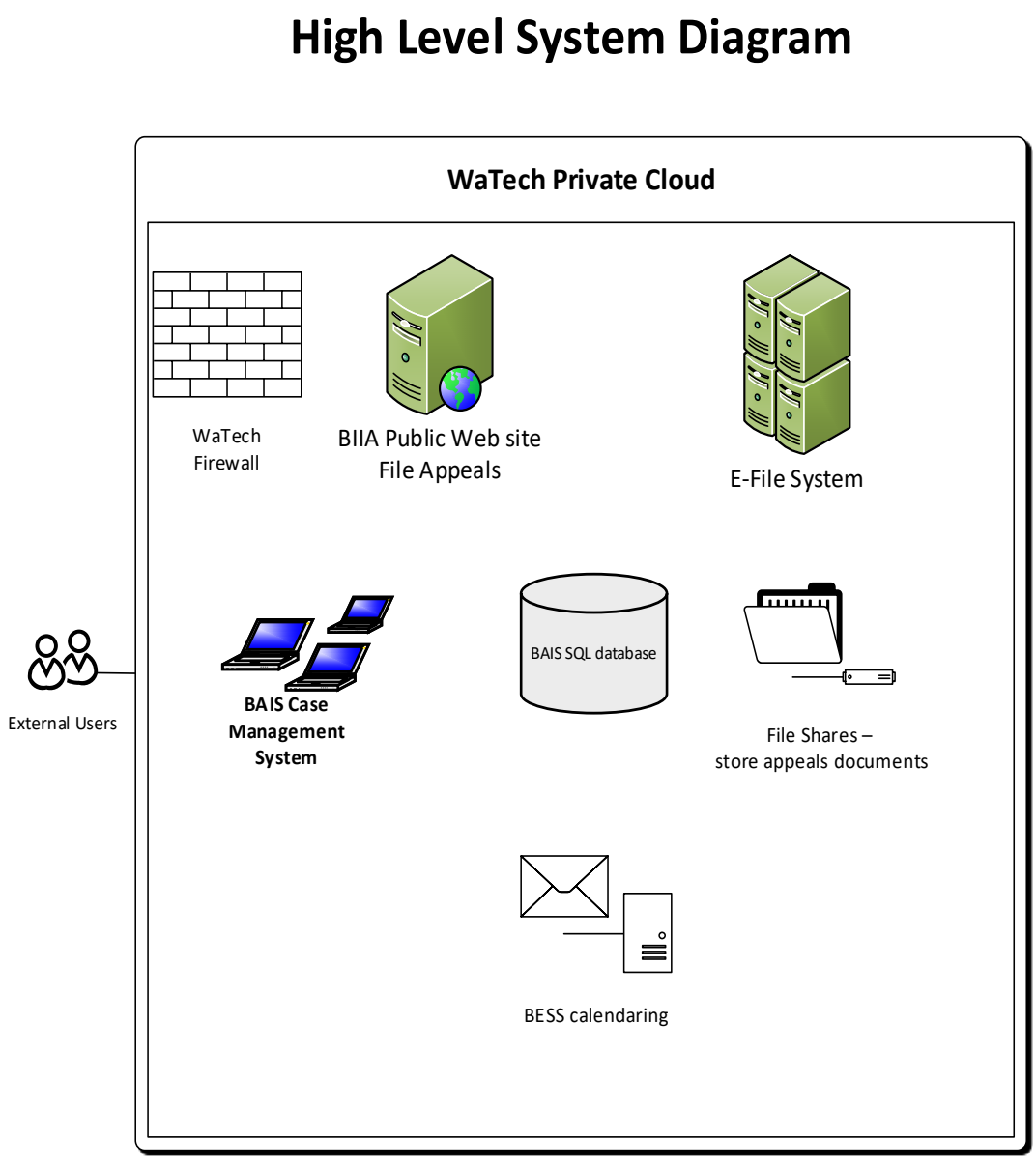
Washington State OCIO and WaTech IT infrastructure and technical standards, policies and procedures prescribe the centralized technical environment for BIIA. See OCIO standards, policies and guidelines at https://ocio.wa.gov/policy/technology-policies-and-standards for applicable artifacts.

As part of the BIIA Technology Road Map the agency plan to migrate to Enterprise Active Directory in the near future and are looking to Office 365.

[14] [14] **State Metropolitan Optical Network (SMON)** is a series of interconnected managed fiber rings established between select areas of Olympia, Tumwater and Lacey. Agency offices within the service area of the SMON may be connected to this network.

2.6 Current System Architecture

The system architecture for the BIIA's Case Management System (e.g. BAIS, E-File, BESS and Portal) consist of multiple virtual servers residing in WaTech's private cloud. This does not include BIIA servers providing dependent services such as DNS, Active Directory, Exchange, etc. The backend database is SQL Server 2014 residing on virtual servers at the SDC.



2.7 Technical Needs

Primary technical requirements for the BAIS Re-Platforming Project include:

- Single Integrated Appeals Processing System: The integrated appeal case management solution will be highly configurable and address BIIA's core business requirements without significant renovation. Additional requirements will be configurable. Ease of integration, portability and configurability are key characteristics of the new system.
- Compliance with National Institute of Standards and Technology (NIST) Special Publication (SP) 800-53 or equivalent. SP 800-53 sets industry security standards for the protection of information in federal systems and has become a defacto security policy for non-Federal systems and networks
- System up-time of 99+% with allowance for scheduled system maintenance. RTO and RPO will be no more than 24 hours.
- Solution vendor to have business continuity plan tested and in place for system restoration in case outage; plan will include fail-over protection and secure, redundant data repositories
- Technical staffing: COTS solution vendor will provide sufficient technical support resources to provide a required level of support in compliance with system performance parameters (i.e. quality, availability, responsibility, Mean Time Between Failures [MTBF]) outlined in the Service Level Agreement (SLA) addendum to the proposed contract

In the event of a planned procurement of a new COTS SaaS case management solution, a complete set of proposed technical requirements is included in Appendix E.

2.8 Statutory Requirements

RCW 51.52, Board of Industrial Insurance Appeals

This statute governs the mission, role and functions of the BIIA. With respect to statutory requirements relative to an information system, the following code excerpts support the need for a responsive, integrated computer application in support of the Board's work:

- Notice of appeal – time limits – it would be prohibitively difficult to comply with the time limits specified in this section without an automated appeal case tracking function that includes work queue, tick and event tracking functionality. RCW 51.52.060
- Demand for repayment; orders amending benefits: requires the Board to serve the worker, beneficiary, employer or other party with copies of orders and other legal notices by mail or secure electronic means, if parties so opt. To comply with this section, an integrated electronic notification system is required. RCW 51.52.050
- The Board shall publish and index its significant decisions and make them available to the public at reasonable cost. Indexing cases and making them available to the public effectively essentially requires an electronic filing system integrated with an on-line portal. RCW 51.52.160
- Review of decision and order for a PFR (Petition for Review) requires a structured voting process by the three Board members that occurs in random sequence but also requires a "look-back" notification to members that have already voted if another member adds review comments to the file, so that members who have already voted can reconsider their election based on the new information. This process, that invokes elements of the Delphi Technique survey process, is significantly aided by automation. RCW 51.52.104
- Supporting workflow. Many sections of RCW 51.52 describe appeal process requirements as an appeal moves through different stages of processing. An integrated case management system is necessary to support and manage this workflow effectively, without missing due dates, dropping work, omitting notifications or delivering unacceptable levels of service. RCW 51.52.10; 51.52.095; 51.52.095; 51.52.102
- Tracking/reporting accrued interest payable on cases of successful appeals, interest payable on the unpaid amount of the award after deducting attorney fees – complying with this requirement would be prohibitively difficult to perform manually without automation. RCW 51.52.135

WAC Chapter 263-12, Board of Industrial Insurance Appeals, Practice and Procedure

The purpose of this chapter is to promulgate rules concerning the board's practice and procedure pursuant to RCW 51.52.020 and to comply with RCW 42.56.040 through 42.56.520 and chapter 40.14 RCW pertaining to public records. The WAC provides detail of operational procedures with respect to the Board's activities. Requirements embedded in these procedures include those any replacement case management system must meet.

Public Records Management

RCW 42.56, Public Records Act

- An integrated appeals case management system is required for effectively managing compliance with the Washington State Public Records Act, including public disclosure accounting, identifying exemptions, performing records management functions including complying with the record retention and destruction timelines specified in this statute

- Under the Public Records Act, there are penalties of up to $100 per record per day for non-compliance. The penalties are paid directly from the agency budget and are determined by higher courts. One factor weighed in court decisions is whether the agencies employ adequate record search methods. Manual search methods have been deemed inadequate, unless supported by adequate (defined as 'multiple') staff. The courts have maintained that relying on one employee to conduct records searches creates a risk to the agency for litigation considering the employee can leave the organization at any time. Electronic records can be searched and audited for records management compliance, proper organization, timely destruction when retention schedules are met and satisfy other compliance criteria. Reverting to paper copies and manual search methods will require additional FTEs to maintain compliance

RCW 40.14, Preservation and Destruction of Public Records

- The designated BIIA Public Records Officer shall inventory or manage the inventory of all agency records at least once during a biennium for disposition scheduling and transfer action; all records classified as "Essential" records shall be inventoried and processed in accordance with RCW 40.10 at least annually. Records in electronic format make organization, maintenance, and access to comply with this chapter possible without the need of additional FTE's in each section of the agency, staff augmentation that would be required if all agency records are in paper format and only accessible by the user

- Records in physical format would be subject to restricted user availability and access. Records maintained in hard-copy would result in delays in delivery to all Public Records Act requesters[15] and potentially require additional staff resources in each BIIA office location to ensure compliance with this chapter. Records in electronic format are immediately available to the disclosure staff and Records Officer for timely compliance with this chapter and the Public Records Act, RCW 42.56

- Public Records only available in paper format create unnecessary risk to the agency as there would be no electronic backup capability with respect to Essential Agency

[15] If the BIIA requires an unreasonable amount of time to complete requests due to the requirement to scan/copy of all requested records it increases the risk of litigation substantially if the defendant can prove the delay was harmful.

Records. In the event of a flood or catastrophic disaster, any contingency plan to recover the agency's records would be compromised

- In accordance with the Public Records Act, RCW 42.56 and WAC 263-12-01701, the BIIA is required to provide copies of public records, upon request, in a timely fashion. The fee associated with scanning paper copies into electronic format is 10 cents per page, and paper copy charge is 15 cents per page. The cost to the requesters will be impacted commensurately. Some requestors will not be able to pay the fees. Consequently, their rights to accessing copies of their cases will be compromised. Additionally, staff time to copy the requested records in paper format would increase 100% requiring additional FTE's to ensure agency compliance with disclosure obligations in a timely fashion

2.9 Prior Studies and Solution Research

As discussed in the Executive Summary of this report, BIIA's initial strategy was to rewrite the existing Powerbuilder legacy code base to a more modern framework, .NET/C+. This strategy is being further evaluated in the course of this project, however it is not recommended for the following reasons:

- Will carry over the inefficiencies and disconnects of the existing platforms
- Will be very difficult to maintain scope, i.e. to simply rewrite and not improve the program in the process of rewriting. The tendency to make functional improvements during rewrite will impact scope boundaries and potentially convert the project into custom design, which entails even higher risk
- The rewrite project was initially underbudgeted at approximately $276,000 ($392,000 minus the $116,000 cost of the feasibility study portion), when outside references using real world project cost benchmarks for rewriting code ($/LOC) predict ***much higher*** estimates for this project[16]
- The rewrite strategy was initially presented in the Investment Plan for the BAIS Replacement Project (BRP)
- Alternatives are further evaluated in sections one and seven of this report

BIIA consulted the respected technology research firm, Gartner Group, in the course of this study. Gartner recommended considering adaptive commercial application frameworks (e.g. Salesforce, Microsoft Dynamics, Appion, Pega[17]) that have the potential to configure case management workflow, in addition to considering COTS. It being the case that the former option class – adaptive configurable frameworks – also represent commercial off the shelf software, these are considered as the same alternative for the purposes of this study. Gartner also recommended considering Government off the shelf (GOTS) software. King County has awarded contracts to a COTS Court Case Management System vendor that offers purchase

[16] "Real world" estimates from software modernization firms for U.S. based code conversion are benchmarked at a ROM average of $10/LOC. BIIA estimated BAIS/eFile/BESS/Portal total lines of code at 857,000.

[17] Some of the "adaptive commercial applications" recommended for consideration by Gartner are oriented to other disciplines: Salesforce is oriented to contact and content management in support of driving sales; Microsoft Dynamics was originally based on Great Plains accounting software; Appion has a Business Process Management orientation; Pega is foremost a customer engagement platform

sharing options. King County's contract is with Journal Technologies. Contract information has been provided to Board administrative leadership.

The recommendation of this feasibility study – pilot/procure a COTS or COTS/SaaS case management system – is consistent with Gartner's high-level recommendations. If the Board issues an RFP for a new system, both of the aforementioned COTS vendor sub-categories (adaptive commercial applications and COTS court management systems) will be invited to participate.

In the course of this study we also benchmarked against the WA State Superior Court – Case Management System (SC-CMS) project managed by the Administrative Office of the Courts (AOC). A separate report was produced regarding this benchmarking and submitted to the BIIA CIO. A high-level summary of this report is extracted here:

- The SC-CMS project requirements set is similar to the requirements set defined by BIIA for this project. A requirements gap analysis conducted between BIIA and SC-CMS business requirements showed a match of core requirements. This finding indicates commercial solutions exist in the marketplace that can meet the agency's essential business needs.
- The SC-CMS project successfully implemented 37 of the 39 WA State County Superior Courts on time and on budget. Two counties (King; Pierce) abstained because they had implemented, or wanted to implement, their own solutions for court case management.
- In addition to meeting with AOC, we spoke with two early adopter counties that had implemented Tyler Odyssey and, despite a steep learning curve during transition from their legacy platforms, these counties found the integrated court case management system to be intuitive, easy to learn, user friendly and configurable.
- With respect to configurability, counties generally needed to conform their workflow to that modeled by the system's embedded best practices, a process that for some proved difficult for a period of time. Other counties adapted more easily. Having said this, many aspects of the program are customizable including forms, letters, correspondence templates and reports. Change management, and creating a culture open to change, was critical to the success of the project.
- County ownership, by Superior Court judges and country clerks, was essential – i.e. that the project was led by local stakeholders and not perceived as being a "state-run" project.
- Despite being stretched thin at times due to the state-wide roll-out, Tyler Technologies overall did an excellent job with conversion, implementation and training
- This is a successful reference COTS project of similar functionality relative to the Board's own requirements. This reference is not intended to represent a recommendation as to a particular solution, only that commercial solutions exist that will meet the Board's requirements for a unified, intuitive and, to an extent, configurable modern case management system.[18]

[18] It should not be assumed that vendors with the highest demand for their court case management products, spanning dozens of states, will bid on a Board RFP because of size and price considerations.

BIIA conducted an RFI in conjunction with the development of this feasibility study. Detailed responses were received from the following case management solution and software modernization vendors:

Company	Solution	Type
Aeon Nexus	JusticeNexus	COTS Adaptive Platform based on Microsoft Dynamics 365
Armedia	ArkCase	COTS ECM[19]/Case Mgmt
Autocene	Autocene Platform	COTS "no code" development environment
cloudPWR	COTS ECM Adaptive Platform	COTS ECM Adaptive Platform
equivant	JWorks Case Mgmt System	COTS Case Mgmt System
Journal Technologies	eCourt	COTS Court Case Mgmt System
OpenText	AppWorks	BPM[20] low code dev platform (COTS/custom design)
Reva Solutions	IBM Case Manager	COTS with high configuration
Tybera	Alpine CMS; Cedar DMS	COTS Court Case Mgmt System
Tyler Technologies/MicroPact	Entellitrak with Appeals Case Mgmt Accelerator	COTS development and configuration platform modeled for appeals case mgmt
Visionary Integration Professionals	Entellitrak with Appeals Case Mgmt Accelerator	COTS development and configuration platform modeled for appeals case mgmt
Metex	Software migration/ modernization	Software migration/ modernization
Mobilize.Net	Software migration/ modernization	Software migration/ modernization
CapTech	Custom Design	Custom Design

Additional detail from the RFI responses is included in sections 7 and 11 of this report.

[19] Enterprise Content Management (ECM)
[20] Business Process Management (BPM)

3.0 Objectives

3.1 Primary Objectives of the Feasibility Study

- Create the business case for a new appeals case management system: document at a high-level the BIIA's business and technical requirements for a BAIS replacement system. This includes current and future business workflow models.
- Analyze potential alternatives for an appeals case management system including the relative merits, cost, benefits, and risk of each alternative.
- Provide a recommended approach for moving forward with replacement case management system solution procurement and project planning.
- Submit the feasibility study for approval. The feasibility study will inform the ensuing Decision Package and updated Investment Plan

3.2 Guiding Principles

- Align the BRP modernization strategy with business process improvement efforts underway at the agency and best business practices modeled by "best of breed" COTS products.
- Establish the replacement system as the official, single system of record for managing workers' compensation claims appeals.
- Identify short-term technology improvements to improve major problem areas with the current headquarters systems and improve ongoing maintenance efforts.
- Improve documentation of existing systems and business logic: capture requirements and rules for impacted business areas.
- In the short-term, identify low-risk and short-term improvements that can be implemented with respect to the current system, reducing the risk relative to operating the current platform until a new system can be implemented. An extensive list of current system issues was prepared in conjunction with this feasibility study. This list can be prioritized/reconciled with open service requests.
- Identify and evaluate shared system options and possible procurement vehicles (e.g. other court case management system initiatives in state and local government such as King County's court case management system contract).
- Define on-going project modernization efforts based on a design that aligns with business process re-engineering efforts.
- Use proven methodologies, technology, and adhere to system architectural principles that reduce maintenance costs in the future.
- Craft an easy to communicate modernization vision for key stakeholders and legislators and develop a Communications Plan that delivers both the vision and regular project communications to stakeholders.
- Field an integrated solution that complies with current Agency and State IT/IS standards including security requirements.
- Use a phased or incremental improvement approach to transform BIIA's information systems, delivering business value sooner, reducing the risk associated with large system replacement projects and distributing funding requirements over multiple biennia.
- Plan and implement a relevant pilot project or proof of concept to validate the proposed approach early in the project.

- The state will remain in full control of the project and not relinquish control, e.g. “delegation by contract,” to a third-party contractor or vendor.

3.3 Opportunities to be Gained (problems to be solved)

3.3.1 Business Opportunities

Modernizing the agency’s core systems will open up the following business opportunities for BIIA:

1. Aligns with State OCIO/WaTech strategic direction of “buy vs build,” reducing direct technological impact on state IT infrastructure
2. Replaces an interconnected (by macro’s and email) patchwork of applications with an integrated case management solution
3. Increases the health and sustainability of the Board’s IT portfolio by reducing technical debt - aging, poorly documented software that has been patched unceasingly over decades and faces imminent technological obsolescence
4. Enables business transformation by engaging industry best business practices provided by the COTS solution vendor
5. Provides claimants and their representatives with more complete information about their cases
6. Allows adherence to all requirements of the state’s Public Records Act
7. Improves system performance

3.3.2 Technical Opportunities and Goals

Technical opportunities and goals include:

1. Give priority to a COTS-based SaaS long-term solution offering to minimize hosting, support and maintenance impacts to the state
2. Adopt industry standards and best business practices for court case management and document filing
3. Plan and execute a sensible pilot test for the chosen solution that will demonstrate capability to meet the Board’s business requirements
4. Comply with OCIO/WaTech security guidelines including Secure Access Washington (SAW) authentication
5. Adhere to technical standards stipulated in the State OCIO’s Technology Manual. Provide the manual as a reference in project procurements.
6. Improve system performance, reliability of data and, most importantly, service to BIIA customers.

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3.4 Response to Statutory Requirements

RCW 51.52 governs the mission, role and functions of the BIIA. With respect to statutory requirements relative to an information system, the following Revised Code of Washington excerpts support the need for a responsive, integrated computer application to help automate the Board's work:

- RCW 51.52.060. Notice of appeal – time limits – it would be prohibitively difficult to comply with the time limits specified in this section without an automated appeal case tracking function.
- RCW 51.52.050. Demand for repayment; orders amending benefits: requires the Board to serve the worker, beneficiary, employer or other party with copies of orders and other legal notices by mail or secure electronic means, if parties so opt. To comply with this section, an integrated electronic notification system is required.
- RCW 51.52.160. The Board shall publish and index its significant decisions and make them available to the public at reasonable cost. Indexing cases and making them available to the public effectively, essentially requires an electronic filing system integrated with an on-line portal.
- RCW 51.52.104. Review of decision and order for a PFR (Petition for Review) requires a structured voting process by the three Board members that occurs in random sequence but also requires a "look-back" notification to members that have already voted if another member adds review comments to the file, so that members who have already voted can reconsider their election based on new information. This process, that invokes elements of the Delphi Technique survey process, is significantly aided by automation.
- RCW 51.52.10; 51.52.095; 51.52.095; 51.52.102. Multiple sections of the RCW that discuss appeals processing workflow. These sections describe what transpires as an appeal moves through different stages of processing. An integrated case management system is necessary to support and manage this workload effectively, without missing due dates, dropping work, omitting notifications or delivering unacceptable levels of service.
- RCW 51.52.135. Tracking/reporting accrued interest payable on cases of successful appeals, interest payable on the unpaid amount of the award after deducting attorney fees – complying with this requirement would be prohibitively difficult to perform manually without automation.

RCW 42.56 Public Records Act

- An integrated appeals case management system is required for effectively managing compliance with the Washington State Public Records Act, including public disclosure accounting, identifying exemptions, performing records management functions including complying with the record retention and destruction timelines specified in this statute.

4.0 Impacts

This section identifies stakeholders, external and internal, who are impacted by the proposed BIIA software modernization project and the nature of those impacts.

4.1 External Impacts (Customer and Inter-Agency)

Injured workers and their representatives will experience improvements in on-line appeal filing and case transparency with enhancements to the on-line filing portal. Improvements will be experienced in workers receiving case information and notifications from the Board relative to their appeals, information that now requires delivery by regular mail.

Notifications and communications with the Department of Labor and Industries, including returns, reassumes and orders, will be converted to electronic format vs. mail, reducing processing time. Where an assistant attorney general is assigned a case, notifications to the Attorney General's Office (AGO) will also be made electronically and the assigned Assistant Attorney General (AAG) will be able to review case files online through a web browser interface.

A new BIIA case management system will also help country superior courts hearing appeals from BIIA decisions obtain direct access to Board records instead of having to contact the agency for missing documents. This connection would be further enhanced if the Board is allowed, and decides, to utilize the state's Superior Court – Case Management System (SC-CMS) master contract for a COTS application used by superior courts across the state and country. Signing on with Tyler, the firm that licenses the Odyssey court case management system, would place the Board on the same IT platform as many superior courts in the state and facilitate file sharing and electronic notification between jurisdictions. However, making specific product recommendations is beyond the scope of this feasibility study. This master contract is mentioned here for information purposes only.

4.2 Intra-Agency Impacts

All 160 BIIA staff members will be significantly affected by IT platform modernization. Though duties for most staff will not change, how they perform those duties will. As the primary workflow tools for the agency, the appeal case management system and e-filing platforms' replacement will bring substantial changes to the workplace.

With an integrated, web browser-based system replacing the current suite of interconnected applications, long-term benefits will be experienced in the following areas:

- Single, customizable Graphical User Interface (GUI)
- Streamlined workflow and increased efficiency enabling increased productivity
- Enhanced platform mobility
- Reduced reliance on the persistent application of Macro's, email and patches to connect applications
- Adoption of best court case management business practices demonstrated by best of breed COTS software
- Real-time data access and improved data accuracy
- Improved system security
- Improved reporting and analytics capability for decision support

Despite these expected improvements, the degree of change from a completely tailored, though rapidly obsolescing, platform to a more generic but integrated application will be difficult for many. Project change management and an in-house super-user/on-going training function will be crucial. These essential elements are built into the project plan and budget (see also section 5.2 Training and section 9, Project Governance).

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5.0 Organizational Effects

5.1 Impact on Work Processes

All primary Board work processes will be impacted by the introduction of a new case management system. However, if a pilot implementation of the selected solution is accomplished it will facilitate "go live" and reduce impact to staff, and work processes, in several key ways:

- Configuration of unique business requirements (e.g. Ticks, waiting times, custom reports, forms and letter development) can occur during the pilot, reducing organizational stress prior to and after "go live"
- A cadre of super users/system administrators can be developed during the pilot who will be invaluable in supporting the live implementation process
- A pilot period of sufficient duration will reduce the level of impact on staff pursuant to switching to a brand-new system by serving as a "stepped" or phased adoption process vs direct cutover. In essence, the pilot will temper an otherwise extremely steep and difficult learning curve effect that would be the result of a non-pilot immediate conversion
- The effects of change management will be strengthened/reinforced by assimilating the lessons learned from the limited pilot immediately into the change management educational process for all staff

Despite these mitigating activities, change will be substantial for an agency that hasn't changed significantly in decades. The following, positive impacts to work processes are anticipated:

- Access to the appeals case management system will be equalized among staff. Presently, Judicial and Legal Assistants have far greater access and input to the case management system than do judges. With a new integrated system, it is expected access to system features and files will be more evenly distributed among all staff. That is, for expected benefits to be realized, judges will require equal access. Important features such as the customizable dashboard and the work judge's queue/pending assignments interface will be part of the integrated solution. All staff involved in processing appeal cases will require direct and unconstrained access to system functionality though individual case files are expected to be accessible on an as needed, "as assigned" basis to maintain security discipline
- Judges and Judicial Assistants will be able to configure their own personalized workspace, viewing current assignments and case related information at a glance. Mediation and hearing folder names can be customized to meet the agency's needs
- Manual processes will give way to automated assists:
    - Appeals uploaded via the portal will be automatically entered into electronic workflow; currently appeals received via the portal are reentered manually into BAIS
    - Automated docketing including assignment of docket numbers will occur upon appeal receipt
    - Appealing parties will be prompted to upload a complete menu of appeal case information vs the partial information currently received in a large percentage of cases. This will allow the potential for automated creation of Jurisdictional History (JH) drafts, currently a manual process

- Notice of Appeal data will electronically update Party Information and Master Address file information, currently activities that require manual synchronization
- Grant/Deny logic can be incorporated at the front end of appeal processing facilitating selection of cases to continue on in the appeals system
- Paper submissions will be reduced in number and as a % of total but more efficiently managed through an integrated scanning and imaging capability vs the current mail-room operation currently performed, utilizing a separate document scanning application
- Phone system integration with the case management system will provide caller authentication features that validate callers before they are handed off to a New Appeals representative
- On-line scheduling of Mediation events will include the ability for appealing parties to select conference dates via the portal: event date/time options will be offered similar to the way airline flight seats can be booked and preferred selection made from available options
- The new platform will record the selection, update judge/staff schedules and send electronic notifications
- Automation will also assist in the Judge Assignment process leveraging business rule logic (workload balancing; geographic requirements, case characteristics)
- Parties will be able to select form templates and language from an on-line menu to respond to Board notifications/orders as well as check their case status and view upcoming events
- Appeals will be auto-assigned to the Hearings Judge upon entry of HIAJ (case ready for assignment to Hearing Judge) by Mediation Judicial Assistant (JA)
- Schedulers will automatically receive Report 204 (Cases by Completion Month)
- The system will automatically issue the litigation order with dates set
- The system will facilitate event scheduling using business logic set by the schedulers
- In the Review stage of appeal processing, Board Voting process will also be facilitated with a confidential Discussion Forum feature that allows notes to accompany the voting process
    - Automate Board voting process to notify members who have already voted of subsequently added Board member comments (e.g. facets of the Delphi Technique survey process)
    - System to track and notify when discussion is requested

Impacts to work process challenges will be encountered in the following areas:

- Adopting standardized court (appeal) case management business process over custom processes (“changes to the way we’ve always done things”)
- Slower response time to address configuration/system changes than in the current system with dedicated IS support
- Having to rebuild custom forms, letters and reports and integrate them with MS Office tools

5.2 Training Needs

The solution vendor will conduct primary staff training for the pilot – in both classroom and webinar delivery modes – for staff selected to work with the pilot system. These staff will later serve as BIIA training facilitators prior to "go live." Essentially, these personnel will be expected to serve as "super users" in the subsequent full implementation. It is anticipated approximately 10-12 staff will process appeals through the pilot system to both test and configure the application to meet BIIA's core requirements. This cadre will spearhead the full-system roll-out alongside the vendor implementation and training teams.

The vendor will also provide primary system training to all staff involved in appeals workflow prior to the full implementation. For system roll-out, the cadre of pilot system employees will assist vendor staff in providing this training in terms of offering real-world appeals case management workflow scenarios. In-class and webinar training will be offered to all staff no matter where they are located geographically in the state.

For the state-wide rollout, in addition to vendor supported classroom and webinar-based training, the following training options may also be considered:

- Leveraging the state's learning management system (LMS) capability to proliferate system training utilizing the state government network infrastructure
    - Solution specific courseware from the vendor can be uploaded to and deployed via the LMS.
- Training "super-users" to in-turn train other impacted staff in their offices using the system portal and dashboard.

  Benefits of the "train the trainer" approach include:
    - Build a team of application experts that can serve as long-term, dedicated departmental resources to trouble shoot issues and operate as Subject Matter Experts and system analysts in training new staff, testing new features and localizing configuration changes
    - Empowers employees and improves retention by distributing power throughout the organization
    - Creates a culture of learning within the agency
    - Improves organizational knowledge management (an area receiving increased management attention and formal recognition as a discipline with high return on investment within leading private and public organizations)
    - Builds a common language or lexicon and maintains cultural consistency

5.3 Job Content

To assess how the new system will impact state employee duties, a job design team (or the Organizational Change Management vendor) will review current staffing levels and workflow, evaluate how employees are classified and how the new system will alter the way business is accomplished. With the job design team and/or organizational change management contractor's input, BIIA management will be able to adjust office structure and job classifications, redistribute existing and new workload and better define the skill sets required to perform work in the new environment. Training will be provided in the new skill sets required as well as on the new system, before respective module rollout. Further training will be provided on the selected

commercial platform components, e.g. portal; dashboard; relevant appeal phase workflow to the employee's assigned duties.

Additionally, in the event of implementation of a new case management solution, operational staff will need to flex and adapt in their organizational roles as some may be matrixed from their functional work areas to also contribute to testing and configuration of the new solution as part of the project team. Job descriptions can be rewritten during the annual review period to reflect these considerations.

These job assessment, alignment and training processes will allow BIIA staff to exploit the efficiencies and integrated capabilities offered by the new system while, at the same time, continuing to deliver responsive, high quality service to injured workers.

6.0 Proposed Solution

The proposed solution is "Buy vs Build." Relevant commercial court case management solutions are available in the marketplace; many of them meet the Board's core business needs;[21] and the cost of a COTS license with on-going maintenance will be less than rewriting/conversion/ custom design. In addition, the Board will end up with "modernized" workflow in addition to software. There will be a period of adjustment until benefits from the modernized workflow are realized.

Integrated Appeal Case Management

The Buy vs Build recommendation is further substantiated by responses to the RFI, Gartner Group input, and the Board's own research, including discovery related to the state Superior Court – Case Management System (SC-CMS) and King County Courts projects and the requirements gap analysis referenced in the footnote below.

[21] RFI responses included 11 COTS products that reportedly meet BIIA's core requirements and/or can meet them with configuration; also, a gap analysis was performed between BIIA and SC-CMS business requirements with a match of core requirements resulting (a COTS solution currently supports SC-CMS requirements in 37 of 39 Washington State counties)

To summarize, the recommended path forward is to:

- Establish a project team structure and secure QA and Change Management resources for the project, not necessarily for planning activities
- Further research the SC-CMS/King County contracts for alignment with BIIA IT Portfolio and software modernization strategy. If alignment is not confirmed, or the Administrative Office of the Courts/King County court case management system contracts cannot be accessed by the Board, proceed to the next step.
- Issue an RFP for a COTS solution referencing the requirements developed as part of this feasibility study, stating intent to perform an extended pilot[22]
- Select the best vendor/solution combination based on extended solution demonstrations, fit with organizational vision and requirements, and cost
- Plan and execute the pilot implementation – planning should include development of a test/evaluation plan with performance acceptance criteria
- Based on performance of the pilot against the criteria, the project's Executive Steering Committee can make a "go/no-go" decision for full implementation

A COTS solution represents the lowest risk (of failure) and the lowest cost option among the alternatives considered. While a COTS product will not meet all of the Board's requirements "out of the box," implementing an extended pilot will both prove the system and allow it to be configured to meet core workflow requirements before full operation. A dedicated change management function will be important to a successful transition.

[22] An RFP will not be necessary if the Board decides, and is able, to leverage a shared contract option

6.1 Commercial (COTS) Offerings in the Court Case Management System Marketplace

There are many commercially available court case management systems that purportedly provide the core business functions the Board is looking for. Many of them reportedly offer end to end case management functionality and highly configurable platforms. The level of reported functionality, to meet the Board's requirements, can best be validated with an extended pilot project where the system is used to process real-world appeal cases. Such a test will help determine the veracity surrounding vendor claims about their solution's flexibility and configurability.

Gartner recommended evaluating "configurable, adaptive software frameworks," such as Salesforce, MS Dynamics, Pega and Appion for their ability to meet the Board's requirements. These platforms are widely adaptive but they may not be suitable for the Board's relatively narrow appeal case management needs and functions without major configuration changes. Nevertheless, companies such as these will not be precluded from participating in any upcoming procurement.

The Board should target highly configurable court case management systems as leading COTS candidate solutions. Board judges have attended court technology conferences where such solutions have been demonstrated and reportedly offer the flexibility of configuration and design sought by the agency. The City of Olympia courts is currently implementing a highly adaptive court case management system (Journal eCourt) that offers a high level of workflow customization. King County is implementing the same technology in superior and district court.

Tyler Odyssey is a leading solution provider of court case management software serving 700 counties in 28 states. Tyler was awarded the Washington State Superior Court – Case Management System (SC-CMS) contract. Administrative Office of the Courts (AOC) is currently negotiating a follow-on contract with Tyler for courts of lower jurisdiction.

In addition to these two court case management solutions, there are many other software products in this category. The RFI released by BIIA received 14 responses, 11 of them for COTS case management products and/or configurable COTS platforms. Vendors for these products stated their solutions address the Board's core appeals case management workflow requirements. Solution costs from the RFI replies were used for the estimates contained in this feasibility study.

Further evaluating the potential solutions identified in the RFI responses for alignment with the Board's requirements and budget may be accomplished with a carefully planned RFP and proposal evaluation process, along with the aforementioned pilot test for final vetting.

Vendors Responding to the agency RFI

Commercial case management solution, COTS adaptive platform, software migration and custom design vendors responding to the RFI included the following companies:

Company	Solution	Type
Aeon Nexus	JusticeNexus	COTS Adaptive Platform based on Microsoft Dynamics 365
Armedia	ArkCase	COTS ECM[23]/Case Mgmt
Autocene	Autocene Platform	COTS "no code" development environment
cloudPWR	COTS ECM Adaptive Platform	COTS ECM Adaptive Platform
equivant	JWorks Case Mgmt System	COTS Case Mgmt System
Journal Technologies	eCourt	COTS Court Case Mgmt System
OpenText	AppWorks	BPM[24] low code dev platform (COTS/custom design)
Reva Solutions	IBM Case Manager	COTS with high configuration
Tybera	Alpine CMS; Cedar DMS	COTS Court Case Mgmt System
Tyler Technologies/MicroPact	Entellitrak with Appeals Case Mgmt Accelerator	COTS development and configuration platform modeled for appeals case mgmt
Visionary Integration Professionals	Entellitrak with Appeals Case Mgmt Accelerator	COTS development and configuration platform modeled for appeals case mgmt
Metex	Software migration/ modernization	Software migration/ modernization
Mobilize.Net	Software migration/ modernization	Software migration/ modernization
CapTech	Custom Design	Custom Design

6.2 Additional Technical Tools Used to Support the Solution

As the targeted solution is expected to be a SaaS application, there are no special technical tools required for implementation of the pilot by the state. Set up will require configuration of the web portal and core workflow processes to support new appeals, mediation, hearings and review process functions. This work will be considerable but is functional, not technical, oriented.

With the rapid growth in SaaS application usage across State Government operations, sufficient internet/intranet bandwidth must be available. If not already conducted, the BIIA CIO in concert with WaTech should consider undertaking an agency user cloud application usage survey, incorporating projections for expected future growth and plan SGN (specifically, network capacity), internet connectivity and bandwidth scalability accordingly.

[23] Enterprise Content Management (ECM)
[24] Business Process Management (BPM)

6.3 Major Functions Provided

An integrated, end to end court case management solution aligned with BIIA business requirements will provide the following core functions:

- Intake and information via a user friendly, two-way internet portal
- Support of the primary BIIA work processes identified in section 2:
    - New Appeals processing
    - Mediation
    - Hearings
    - Review
- Customizable dashboards for staff and judges
- Ability to add tasks automatically or manually into workflow
- Flexible due date assignment
- E-filing and comprehensive document management including configurable document routing
- Track/search cases, case history, by case identifiers, key word
- Master address file/Address API and facilitated maintenance of party addresses
- Ability to add notes to workflow items
- Auto-assignment of judges based on role and workload
- Work queue functionality
- Integration with MS Office applications
- Integrated scheduling/calendaring functionality
- Single-sign on authentication
- Electronic signature capability

6.4 New Organizational Structures and Processes Necessary to Support Implementation

If the recommendations of this report are adopted, a pilot project staffing structure will need to be established. This structure could include sufficient staff to process a designated percentage of appeals in the new system through the main workflow phases outlined in section 2.2. This would represent a parallel workflow and create extra work, even if appeal processing in the 'pilot channel' reduces workload in the current (mainstream) process, because of the significant amount of configuration required in the new system and reconciliation of work at multiple touch points between the two flows. The pilot staffing can coexist with present staffing in each area of appeal processing or stand to the side as a quasi-independent functional arm of the agency, depending on advice from the solution vendor and input from the Executive Steering Committee.

The project management and oversight team described in section 9 will serve as the governance structure for the project. This project management model will ensure the following standardized processes are clarified and in place:

- **Clear Goals and Objectives** – the Project Manager (PM) will establish clear goals and objectives for effective execution of each project management process
- **Phased Implementation with Stage Reviews -** applying lessons learned in previous phases to future ones, thereby continuously improving performance
- **Process Owner** – the PM will designate an "owner" for each project management process so that performance responsibility is clear; process owners will generally be in the business domain, as appropriate
- **Process Repeatability** – Project management processes are defined and yield consistent process results/outcomes – this includes establishment and promulgation of standardized PM plans and procedures where appropriate
- **Assigned Roles and Responsibilities** – defines unambiguous roles, activities, and responsibilities for each project management process to ensure efficient project execution
- **Knowledge Transfer** – facilitate the transfer of technical and domain knowledge between contractor and line staff, and vice versa, through improved 'as built' documentation processes and structured in-house training sessions. This process will be enacted and facilitated by the Project Change Management resource, to be identified
- **Process Performance Evaluation** – objectively measures the performance of each project management process against defined goals and objectives

7.0 Alternatives Considered

Reversion to paper processes from the current, or any electronic appeals case management system, isn't feasible for the following reasons:

- Virtually all appeal related documents are presently electronic; converting the 109,000 active, closed and archived electronic appeal cases to paper is estimated to cost $550,000[25] and this would be a sunk (unrecoverable) cost (note: this cost is greater than our benchmarking estimate to license a new COTS solution)
- If forced to adopt paper based processes, when the Board reconverts back to an electronic document management system at some point in the future, it would require another $500,000-600,000 to image the documents back to an electronic document repository, for a total of $1M in printing/imaging costs alone, not counting the cost of licensing and maintenance going forward
- Operationally, reversion to paper would result in a near-work stoppage situation as judges and staff have to manually search for documents, letters, forms and records related to each and every case. It is estimated that 8 hours of additional time/case would be required to perform manual document management functions (preparatory and post mediation/hearing/review) or 10,400 hours/year requiring the addition of 5 Judicial Assistant FTES at $48,000 annual salary
- Records management functions, including the timely meeting of Public Disclosure requests, and complying with records retention requirements would be severely impacted. Simply put, the agency would not be able to comply with WA State's Public Disclosure Law.

For these reasons, reversion to paper cannot be realistically considered and this alternative was ruled out of consideration as a plausible option for the Board.

The following section describes the four alternatives that were seriously evaluated as potential primary approaches for modernizing the Board Appeals Information System (BAIS).

7.1 Rewrite the present software in a more modern language/framework

Successfully converting a legacy application to new technologies manually is exceptionally difficult because:

- Rewriting code is extremely labor intensive. At an industry benchmark of 160 lines of code a day/programmer, rewriting 857,000 lines of code (LOC) would result in 5356 programmer days or 20 programmer-years of effort
- At another industry standard[26] of $10/LOC the estimated cost to rewrite BAIS/eFile/Portal/BESS from scratch would exceed $8M including testing, QA and project management
- Rewriting projects experience an extreme challenge in "simply" rewriting the code vs also incorporating needed fixes or changes ("scope creep"): few rewriting projects maintain the discipline to *only* rewrite existing code to a new language or framework. Often, also, such projects see infighting between the migration team and the maintenance team during the

[25] Based on "per case" e-file transaction costs associated with the statewide superior court system
[26] Based on actual projects benchmarked by a Seattle based software modernization firm

conversion process (rewriting group to maintenance team: “don’t change that, we just finished converting it”)

- Poor implementation (did the programmer recoding the software really understand what it did?) and uneven conversion quality (developers will produce at different levels of productivity and quality yielding uneven results)
- Carry-over of the inefficiencies of the old system to the new one. After this incredible level of effort, the organization and users deserve a completely new system with modernized workflow embodying best business practices; instead they get the old functionality with its residual defects
- Potential carry over of code that is equally hard to maintain unless it is well documented: the code documentation effort could add 10% or more to the project’s level of effort (LOE)
- Testing is a huge challenge and adds 20% or more to the project cost/schedule
- Maintaining continuity/retention of programmer and testing staff for the life of the project is difficult to achieve

Rewriting projects often fail before they are complete due to these native risks.

7.2 Migrate the existing software to a modern language/framework

Auto-converting code[27] to a new platform and code base is another way to modernize software but it comes with its own set of risks:

- Auto-conversion has uneven results depending on the vendor/conversion software
- Auto-conversion still requires a significant amount of manual rewriting, estimated at up to 20% of total, which almost makes it a rewriting project in addition to a code conversion project
    - A software modernization firm’s estimate received in response to the RFI was for $1.96M conversion related costs and $348,000 on-going annual maintenance
- Testing is a huge challenge to verify the parts of the code base that were converted actually work as before and could add another 20%+ to the base LOE
- The target software language (platform) may or may not be what the agency wants – preliminary, informal vendor contacts showed at least some code converters were more likely to convert to Java Spring/ASP.NET vs .NET (C+)
    - Plus, some code conversion companies will not convert from a source system programmed in PowerBuilder
- The challenge is equally about converting architectural connecting points (database access, screen I/O, job control, interfaces to other systems) as it is about converting the programming code itself
- As with the rewriting option, the inefficiencies and disconnects manifested in the present software will carry-over to the new code base, and this is *if* the conversion is successful!

[27] A number of software modernization companies offer automated code conversion services

7.3 Build a new system – Custom Design

Because of their inherently high risk(s), custom design projects should only be considered if there are no acceptable commercial products and one of the best ways to determine if there are no acceptable commercial solutions is to first perform a rigorous gap analysis of business requirements vs "best of breed" commercial solution capabilities[28] followed by an extended pilot.

Based on benchmarking results with other states and on a detailed response to the RFI, custom design costs will range from $5M - $16M. This range represents what several states[29] with comparable appeals case management platforms paid a custom solution vendor to design and implement an operational system.

Despite the pervasive software development risks inherent to "custom design," there are exceptions to the now generally accepted rule of this option being the alternative of last resort. The custom design projects that succeed typically have the following characteristics:

- Defined but limited scope
- Defined and documented design specifications including complete definition of business rules, forms, letters and reports
- Minimal system to system interfaces that have to be programmed
- Available, reliable programmer support for the life of the project with no or limited turnover because high staff turnover destroys project continuity
- Available, reliable Subject Matter Expert (SME)/business analyst support for the life of the project with no or limited turnover
- Integral, reliable and experienced testing resources with no or limited turnover
- Lean and consistent project management (with no or limited turnover) utilizing a preferred agile development structure

Since it is very difficult to establish a highly scoped and bounded project structure like this, in particular maintaining consistent staffing patterns with no/low turnover over the life of the project, a large percentage of such projects fail.[30] If they do not fail altogether, it is common for custom design projects to experience significant cost/schedule variances.

Furthermore, when an agency builds a custom system, they invariably have to reconfront the question of system modernization a few years later, when their legacy platform once again faces maintenance and sustainability issues. This option therefore represents the proverbial metaphor of "kicking the can down the road," only to have to bend over and pick it up again later.

[28] A gap analysis was conducted of BIIA requirements vs requirements addressed by the SC-CMS COTS contractor and there was a match

[29] Virginia, Kentucky, Kansas, Nevada

[30] 68% of systems projects fail, "The Impact of Business Requirements on the Success of Technology Projects," IAG Consulting (source: Zdnet.com)

7.4 Procure a COTS solution

Because court case management systems that meet the Board's core business requirements are available in the marketplace, COTS procurement is the recommended alternative with conditions.[31] The Board should procure a proven, configurable, commercial end to end court case management system (COTS/SaaS) by the end of CY2021 and implement the selected solution during the 2021-2023 biennium, in a pilot - limited scope mode, before fully implementing the system across the organization.

Pilot Implementation

Recommend a Pilot Implementation prior to obligating to a full term (licensing, maintenance, option years) contract. Though it will require additional work for a period of time (recommend a nine month pilot because of the extended life-cycle of WC appeals), only with operating a pilot implementation and processing real appeals will the agency learn whether the chosen solution is sufficiently adaptive (and configurable) to meet its requirements.[32] Prior to implementation, BIIA should stand up the proposed project governance structure[33] and plan for data migration. A COTS with Pilot Implementation option represents the lowest risk, highest probability of success, most cost-effective long-term strategy.

Potential issues that will need to be addressed with this alternative or any other path forward:

- Data migration: a data migration plan/strategy needs to be developed and resources applied, if appropriate; data cleansing prior to migration should be considered
- Change management (CM) will be critical given current system attributes (highly customized) and migration to a COTS product (will not meet all the agency's unique needs "out of the box"). The approach to change management should include consideration of: the organization's history, culture and change acceptance/resistance; evaluation of internal vs external CM resources (depending on need and availability); and budget considerations
- Implementation planning considerations: staffing; training; cutover (immediate or running in parallel); interface management; reporting

7.5 Evaluation Criteria

Each of the four alternatives above was analyzed against a set of evaluation criteria. The evaluation criteria are described briefly below.

1. **Degree of Fit with BIIA Business Requirements** – This criterion refers to the extent to which an alternative meets BIIA's future business requirements for the modernized system.

[31] Primary conditions are for a carefully planned procurement including rigorous benchmarking with other jurisdictions, client reference checking, hands-on product demonstration and an extended on-site pilot test where both out of the box performance and ease of configuration are fully vetted

[32] BIIA will also need to adapt its business processes to a new COTS platform which it might view as an opportunity, vs a threat, because the leading COTS products embrace best practice workflows the Board can benefit from by business process management (BPM) modeling

[33] Please see Section 9, Project Governance

2. **Degree of Fit with State/Agency Strategic Business Direction** – This criterion refers to the extent to which the alternative is aligned with State of Washington and BIIA business objectives and strategic plans.

3. **Consistency with the State/Agency IT Direction** – This criterion refers to the extent to which an alternative aligns with State, and BIIA, information technology standards and direction. This includes the extent to which an alternative will leverage and/or support the implementation of the OCIO's Enterprise Technology Strategic Plan including evaluating options for leveraging shared platforms or contracts to cost effectively procure required services. Other aspects to be considered under this criterion include customer service capability, system sustainability, process efficiencies, security, development platform, database management software, system integration, and reduction of redundant agency or shadow systems, among others.

4. **Life Cycle Costs/Total Cost of Ownershi**p – This criterion is based on a comparison of the cost of supporting the system over its lifecycle. Costs include estimates for court case management system implementation/set-up; software licensing fees; and annual maintenance/configuration costs.

5. **Degree of Risk** – This criterion is based upon the relative degree of risk of each alternative, including the risk associated with becoming a (new) technology first adopter and the relative risk of the availability and stability of the development team during development and post-deployment.

6. **Speed of Implementation** – This criterion refers to the expected duration of the initial implementation project from the procurement through go-live, and with a period of post go-live support.

7. **Long-Term Support Considerations** – This criterion is designed to address the relative level of support required post-implementation. Factors to be considered under this criterion include whether the solution can be internally supported, whether the state will be dependent on a third party for software maintenance and upgrades, the ease of completing and implementing these upgrades, and the type and number of staff and skills required for BIIA to maintain modernized applications internally.

The next section provides a tabular comparison of the four software modernization alternatives against these evaluation criteria.

7.6 Comparison of Alternatives

Alternative	Fit with BIIA Future Business Requirements	Fit with State/Agency Strategic Business Direction	Consistency with State/Agency IT Direction[34]	Total Cost of Ownership[35]	Degree of Risk[36]	Speed of Implementation	Long Term Support Considerations[37]	Total
Rewrite	**4**	**2**	**1**	**1**	**2**	**2**	**3**	**15**
Migration	**4**	**2**	**1**	**1**	**2**	**2**	**3**	**15**
Custom Design	**4**	**2**	**3**	**1**	**1**	**1**	**3**	**15**
COTS	**3**	**4**	**5**	**4**	**4**	**3**	**4**	**27**

For each criterion each alternative is rated on a scale of one to five, where "5" is high, except for the cost/risk/schedule related criteria, where a "1" reflects a very high cost/high risk or low speed of implementation, and a "5" reflects a very low cost/low risk or high speed implementation potential. This rating adjustment will keep the evaluation in balance from a total point perspective; the higher the total score the more attractive the alternative based on this criteria set.

[34] The state wants agencies to consider shared platforms/contracts including adopting common business requirements, where feasible
[35] COTS subscription license and implementation fees are less than the high cost of rewriting, migration and custom design
[36] "Degree of risk" refers to the percentage of rewrite, migration and custom design projects that experience major scope creep, cost/schedule overruns or outright failure, estimated as high as 68%
[37] COTS vendor will be providing system maintenance therefore there will be less impact on the state and agency

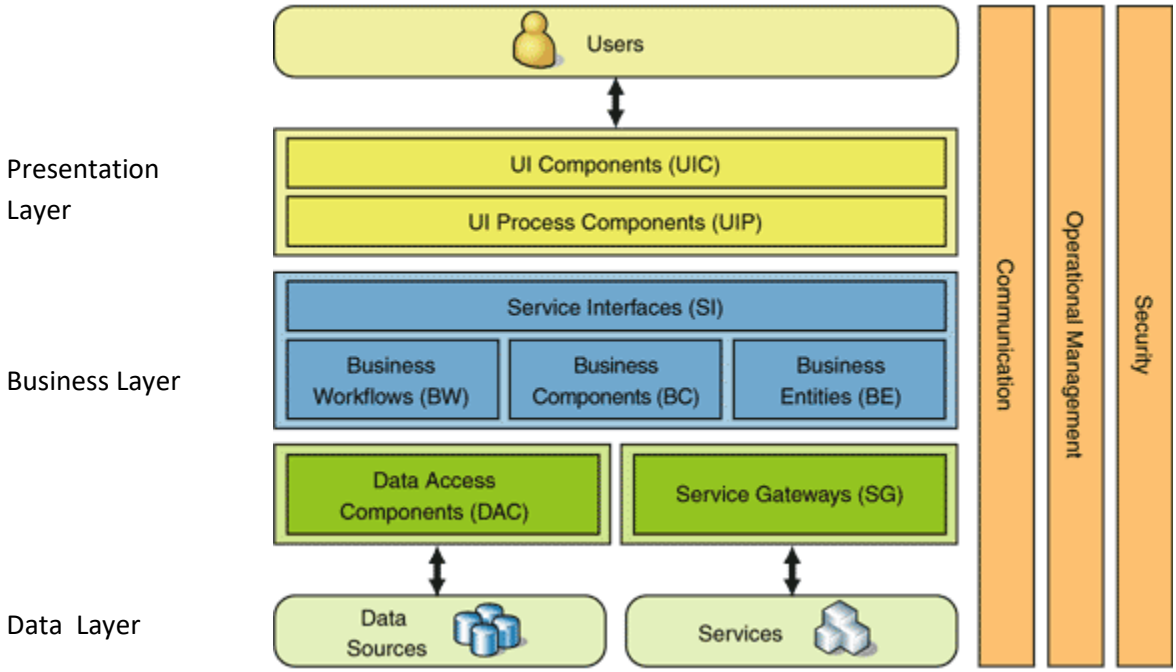
7.7 Recommended Alternative and Rationale

Procuring an integrated COTS – SaaS court case management system offers the most potential for the agency to meet its objectives of:

- Modernizing the agency's legacy aging code base with a contemporary, sustainable platform, consistent with ease of operation and support over the long-term
- Obtaining a solution that meets BIIA's core business needs in an integrated, user friendly, configurable software package
- Enabling business transformation by leveraging best court case management business practices modeled and supported by the software
- Mitigating the expected loss through retirement of the IS development staff responsible for maintaining the present system
- Procuring a solution that aligns with state enterprise IT architectural direction
- Avoiding absorbing the significant risks of rewriting or migrating existing code or building a new system

8.0 Conformity with Agency IT Portfolio

The COTS court case management solution selected will conform with the following state and/or agency technology standards (e.g. Microsoft architecture foundation) and be applied across the common multi-layer architecture:



In this model, three layers are principal. These layers and the associated technological standards, or representative components, adopted by the agency are as follows:

Presentation: The presentation layer provides the application's user interface (UI). Use of Windows forms for smart client interaction and ASP.NET for browser based interaction and Windows Presentation Foundation (WPF) are development tools used in this layer to develop rich client interfaces.

Business: The business layer supports the application's functionality. Components of this layer are typically implemented using one or more .NET enabled programming languages. Components may be augmented with Microsoft .NET Enterprise Services for scalable distributed component solutions and Microsoft BizTalk Server for workflow implementation and transaction support. Other business rules engines and supporting components compatible with Microsoft enterprise architecture standards will also be considered for deployment in this layer.

Data: The data layer provides access to external systems such as databases. The primary .NET technology involved at this layer is ADO.NET. .NET XML is used here, also. MS SQL Server is the relational database management system supporting database components in this layer. Compatible data warehouse solutions and accompanying tools for analytics and Extract, Transform and Load (ETL) functions will be considered to support a robust data layer. MS SQL 2014 will be the target relational database structure and is compatible with top COTS product database requirements.

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8.1 Strategic Focus (Business and IT Goals)

Primary business and strategic goals of the BAIS Replacement Project (BRP) include:

Overall – Program Management

- Clearly defined scope and requirements
- Carefully managed scope and requirements
- Clear line of authority: one party (e.g. project manager) must be in charge to avoid control conflict
- Project risks will be identified and managed with a balanced scope
- Transparency and honest are paramount
- Adequate budgets and contingencies must be planned and judiciously executed
- The prevailing culture will be a spirit of cooperation and collaboration with a shared vision among stakeholders of the path to success
- Executive Steering Committee and Board management should actively work to create a culture that welcomes change

Primary Strategic Goals - Business

- Selected solution must meet BIIA's core business requirements and represent a single integrated court case management solution that offers speed and ease of access to all information in an appeal case file
- High-level business requirements have been defined and will continue to evolve and be refined
- Reduce/eliminate workflow inefficiencies including redundant input processes and dual data entry
- Internet portal will offer all parties ready access to case information: 360-degree view of customer information provisioning
- Improve case processing/completion analytics, reporting and transparency
- Solution will feature a comprehensive training module or internet enabled training course(s)
- Identify/implement integration opportunities across platforms (ORION; LINIIS; Early Claims Solution)

- Include a comprehensive, accessible approach to business rule management such as a business rules engine capability

8.2 Effect on Technology Infrastructure

The selected, integrated court case management solution will likely be a COTS application delivered via a Software as a Service (SaaS) model, meaning it will have reduced impact on state technology infrastructure when compared to an on-premise hosted application. SaaS applications are consistent with State OCIO IT modernization policy and direction.

The State's Business Transformation and IT Modernization Blueprint ("One Washington") supports broader implementation of SaaS applications:

"One Washington implemented a Facilities Portfolio Management tool as a successful first effort in implementing Software as a Service (SaaS) statewide"[38]

"The One Washington program has selected a SaaS approach, also described as a cloud approach, to technology deployment."[39]

The state is moving in the direction of becoming SaaS-centric because such a policy offers clear benefits compared to on-premise hosted applications:

- Lower cost of entry. SaaS solutions typically cost much less than on-premise solutions because SaaS contracts are typically structured for users to "pay for what they use" and nothing more. Infrastructure, maintenance and support costs are no longer part of the overall cost profile for SaaS implementations. Flexible, if not competitive, pricing is the norm, depending on the sector and respective marketplace[40]
- Faster implementation: SaaS (or "cloud") platforms have already been provisioned and vetted by the solution provider, reducing schedule risk
- Security is equivalent or better than many on-premise hosted application environments and customers do not have to establish and finance associated security infrastructure and staffing complements
- Software upgrades and release management are handled by the solution provider, often executed automatically, removing a significant software maintenance burden from the customer

SaaS model benefits notwithstanding, there are some important factors to not take for granted:

- Robust internet bandwidth is essential: CIOs must ensure high speed bandwidth for current and future applications, supporting rapid growth of SaaS solutions as legacy systems are replaced. SaaS solution response times are dependent on network bandwidth
- Less internal control of the application environment makes proper vetting of cloud service providers imperative, so that mutual trust between service provider and customer

[38] History of the One Washington Program, One Washington Program Blueprint, June 2018
[39] Technology Deployment Model, One Washington Program Blueprint, June 2019
[40] The COTS court case management marketplace is quite competitive, suggesting competitive pricing should be attainable

is established at the outset of the relationship. Having said that, configuration and customization requirements should be negotiated up front, based on documented requirements, so users retain contractual control over system upgrades (including integration and interoperability requirements)

8.3 Other

The proposed solution will be aligned with applicable OCIO policies and technical standards. In the event there is a forthcoming RFP, it will include applicable OCIO and WaTech technical standards as well as state a compliance requirement for offered solutions to conform to applicable WA State contractual policies and regulations.

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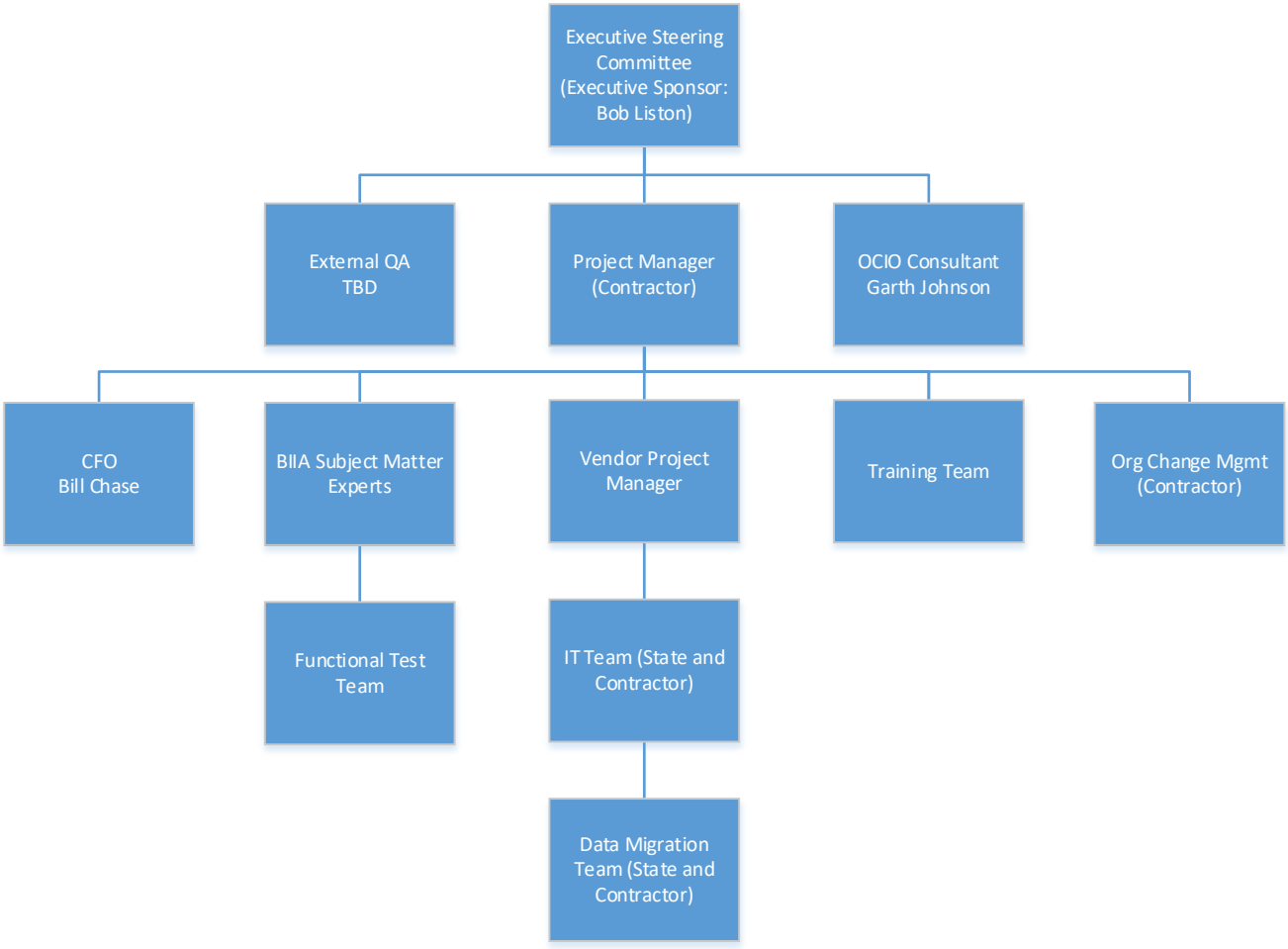
9.0 Project Management and Organization

This section defines the proposed project management and organization structure for the BAIS replacement initiative including the proposed governance structure and the key roles and responsibilities of various stakeholders. This section also outlines suggested project decision-making processes and recommended procurement and quality assurance strategies for the project. The proposed project management structure for the BAIS Replacement Project is as follows:



Executive sponsorship will be provided by members of the Board's executive management team, led by the Executive Sponsor, Chief Administrative Officer, Bob Liston. The agency will contract for a fully qualified, "right-skilled" project manager. The Executive Steering Committee (ESC) is presently actively engaged in the project planning process. The principal interest of the ESC is ensuring IT solution alignment with core appeals business process while, at the same time, acknowledging that change is forthcoming and some business processes will require adaptation to the software. With this realization, the ESC will lead the change

management process by resetting cultural markers opening the door to business transformation.[41]

The organizational staffing model will be matrixed in nature with resources temporarily assigned to the project manager for the duration of the project, including the pilot, on an as needed basis. Functional reporting lines will remain intact.

For the pilot, more ESC deliberation needs to occur to determine resource commitments and pilot organizational structure. Options are "side by side" parallel operation of the pilot with existing organizational structure, a "stand-alone" focused pilot organization or a hybrid of the two. Assumptions, constraints and acceptance criteria (for a full implementation decision) need to be identified. Pilot planning is expected to coincide with procurement, according to the proposed schedule shown in section 1.7 in fall of 2020.

Project oversight will be provided by an external QA resource TBD. Change management services will be delivered by an external CM contractor TBD.

9.1 Project Governance – Roles

9.1.1 Executive Project Sponsor

Bob Liston, Chief Administrative Officer, is the BRP Executive Sponsor. Mr. Liston has been with the Board for 18 years and has directly overseen multiple major initiatives.

9.1.2 Executive Steering Committee

Name	Role	Position
Bob Liston	Executive Sponsor	Chief Administrative Officer
Mark Jaffe	ESC Member	Chief Judge
Dave Threedy	ESC Member	Assistant Chief Judge
Cheryl Carlson	ESC Member	Industrial Appeals Judge
Beth Blue	ESC Member	Program Manager
Patrick Estabrook	ESC Member	Program Manager
Garth Johnson	OCIO Consultant	OCIO Consultant
QA Vendor	QA Consultant	QA Consultant
Bill Chase	ESC Member	Chief Financial Officer
John Hanson	ESC Member	Chief Information Officer

9.1.3 Project Manager

Name	Role	Position
Contract Position	Project Manager	"Right skilled" contracted resource

[41] Additional reference: "15 Best Ways to Build A Company Culture that Thrives", Forbes Coaches Council, Jan 29, 2018

9.2 Project Governance – Responsibilities

This subsection outlines various project roles and responsibilities relative to the BRP initiative, including oversight roles performed by external entities.

Washington State Office of the Chief Information Officer (OCIO)

The OCIO is responsible for establishing state information technology policy and standards, providing overarching project oversight, periodically receiving and reviewing project progress reports, and authorizing the project to proceed at periodic milestones or "gates" throughout the project lifecycle.

BRP Executive Steering Committee

The Executive Steering Committee has overall responsibility within BIIA for the execution of the BRP project. The BRP Executive Steering Committee is a senior team of BIIA executive management members each responsible for providing overall guidance and direction to the project.

Change Management Contractor

The change management contractor will be responsible for assessing and facilitating organizational and staff adaptation to the new system, including but not limited to:

- Developing and executing a change management plan
- Assessing readiness for change and addressing gaps
- Facilitating job review and training needs including participation in creating a training plan and supporting training
- Working with management on creating and activating cultural change to support successful system transition
- Documenting lessons learned and assimilation of those lessons into organizational policy/guidelines

Executive Sponsor

The Executive Sponsor's role is of paramount importance to the success of the BRP. The Executive Sponsor will chair the Executive Steering Committee and is responsible for policy direction and issue resolution of matters escalated by the project manager to executive management.

Project Manager

The Project Manager is responsible for planning and execution of all project related activities including scheduling, resource assignment, vendor procurements, risk management, status reporting, scope management and change management. The Project Manager will be responsible for the day-to-day management of the BRP initiative and will work in close coordination with, and oversee the activities of, the Business and Technical leads.

This position has primary planning and execution responsibilities (scope, cost, and schedule) for the following primary organizational elements of the BRP initiative:

- Pilot project planning
- Pilot project execution
- Data migration
- Configuration management
- Training and change management
- Testing and verification
- Documenting lessons learned from Pilot
- Recommending a “go/no-go” decision for full implementation to the ESC
- Implementation and support

The Project Manager will reconcile dependencies across project tasks and bring issues and risks to the attention of the Executive Sponsor and the Executive Steering Committee, as appropriate. The PM will manage the project budget and develop and maintain the project schedule. This position will report project status to the Executive Steering Committee and other key project stakeholders.

IT Team

Advises the Executive Steering Committee on technology related matters including solution evaluation and procurement. Helps resolve/mitigate technology related risks such as consulting on complex interfaces, technical configuration issues or integration tasks. In an advisory capacity, helps the Project Manager set the overall technological direction for the program.

BRP Team – Workgroup Leads, Business Analysts, SMEs, IT Specialists

Workgroup Leads, Business Analysts, SMEs and IT Specialists - will be responsible for supporting the business and technical requirements definition process, including business analysis, providing business and technical expertise to the conversion and configuration management activity and working with the vendor to deliver a successful implementation. These positions will either report directly to the Project Manager or be matrixed to the PM. Either way they will be dedicated resources to the BRP Project. Vendor staff may also augment this team.

Test Team

The Testing team will be responsible for coordinating all BRP testing efforts. This team will consist of BIIA staff, working in collaboration with the test team of the selected BRP solution vendor. The responsibilities of this team will include establishing standards and providing quality control and oversight of the unit/integration level testing performed by the selected vendor relative to module conversion and solution configuration to meet core BIIA business requirements; providing guidance to the system and parallel testing effort as well as monitoring the progress and quality of unit/integration/testing activities; and planning for and managing execution of BIIA’s user acceptance testing (UAT) effort.

9.3 Issue Resolution and Other Project Decision-making Processes

Issue resolution and other decision-making processes will flow upward through the project organization. Working with the selected solution vendor and through the program office, the BRP Project Manager will be responsible for resolving issues within the project team. Issues that either the Project Manager or the Executive Sponsor believe require management input and direction because they affect policy and/or project scope, schedule, budget or other primary project control factors will be elevated to the Executive Steering Committee. If issues require immediate resolution and cannot wait until the next meeting of the steering committee, the Executive Sponsor may choose to resolve the issue and/or informally poll committee members for input prior to making a decision.

9.4 Quality Assurance Strategies

An independent third-party contractor will perform quality assurance and readiness assessment activities for the BRP initiative. The external quality assurance consultant will report to the Project Manager. External quality assurance is an important part of BIIA's BRP strategy. The external QA resource will be charged with providing the following quality assurance services:

- Initial and periodic QA readiness assessments
- Schedule, budget and deliverable review, identifying variances
- Evaluation and recommendations concerning project governance and individual, sub-project management (e.g. data migration; business process improvement; change management; task scheduling/dependencies; resourcing and staffing; resolving potential maintenance and development conflicts)
- Progress reviews at both the tactical and strategic levels of project operations
- The external QA consultant may be installed as a member of the Executive Steering Committee, subject to decision by the Executive Sponsor

An OCIO Oversight Consultant will also be assigned to provide project oversight.

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10.0 Estimated Timeframe and Work Plan

This section outlines the proposed project schedule and work plan for the BAIS Replacement Project with key milestones and decision points. It includes the planned project timeline (i.e. major phases) through implementation, and a description of the major tasks to be accomplished in each phase. This is the best high-level timeline projection available at this time, but is subject to change based on funding and variances to the procurement schedule.

10.1 Overview

A phased implementation approach, incorporating a limited pilot implementation, is proposed because it offers risk reduction advantages and also supports the OCIO's direction of designing major technology projects with "short duration milestones that deliver measurable operational or end-user improvements." [42]

10.2 Summary and Timeline

Initial, preparatory, and planning work consists of the following:

- Approving the Feasibility Study
- Updating the Investment Plan and seeking approval
- Preparing a Decision Package (funding request)
- Updating the Project Management Plan
- Identification and response strategy regarding development/tracking of Risks and Issues
- Development of project budgets for OFM approval

Following these "next steps," and pursuant to receiving funding approval, will be the process of procurement planning. Procurement planning will include:

- Determination if shared systems or a shared contractual arrangement (e.g. existing procurement vehicles such as SC-CMS or King County Courts) are accessible to the Board and/or will meet the agency's needs
- Developing the statement of work
- Preparing the RFP
- Releasing the RFP
- Conducting the evaluation process including rigorous system demonstrations of finalists
- Selecting the Apparently Successful Bidder (ASB)
- Contract negotiation and finalization
- Pilot project initiation
- Conduct acceptance testing and document lessons learned
- Executive Steering Committee to make "go-live" decision based on the former activities' results and recommendation from the Project Manager

A high-level view of the overall project schedule is included on the next page.

[42] *Biennial Report on Information Technology*, OCIO (Washington State), January 2013

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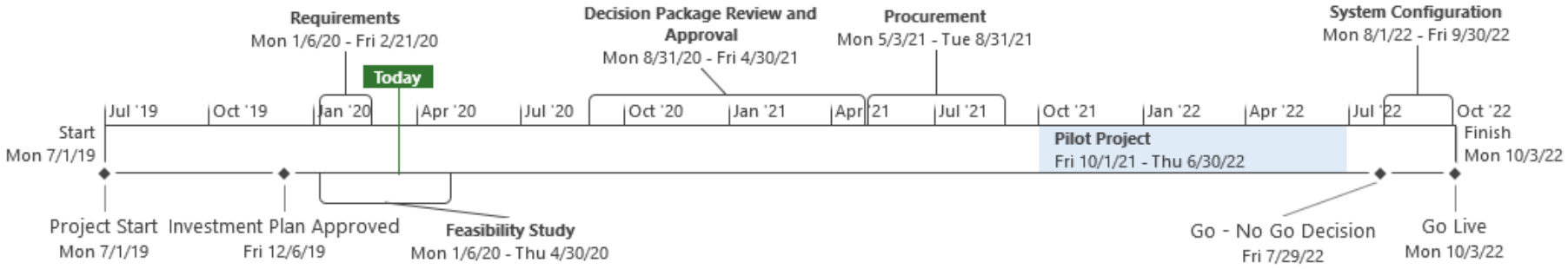
BRP Project Implementation Schedule

This information is based on current known activities and is likely to change with further elaboration of project activities.

Phase/Milestone/Deliverable	Target Start Date	Target End Date
Project Start	07/01/2019	
Investment Plan Approved		12/06/2019
Requirements	01/06/2020	02/21/2020
Feasibility Study (FS)	01/06/2020	04/30/2020
Board Decision on Recommended Option from FS		05/18/2020
Update Investment Plan		07/15/2020
Develop Decision Package		08/31/2020
Approve Decision Package		04/30/2021
Procurement	05/03/2021	08/31/2021
Pilot Project Planning	07/01/2021	09/30/2021
Pilot Project (limited implementation)	10/01/2021	06/30/2022
Review Lessons Learned from Pilot	07/01/2022	07/29/2022
"Go – No Go" Decision on Full Implementation		07/29/2022
System Configuration	08/01/2022	09/30/2022
Other Pre-Implementation Activiites (e.g. full staff training; data migration)	08/01/2022	09/30/2022
Go Live	10/03/2022	06/30/2023

Timeline View of the BRP Schedule



10.3 Work plan

Following is the general, high level task order of precedence for rolling out the selected COTS court case management solution at BIIA:

PMBOK[43] PROJECT PHASE	KNOWN TARGET ACTIVITIES	RESOURCES	TARGET END DATE
INITIATION			
	Initial Investment Plan	BIIA CIO/CFO; OCIO	12/9/2019
	Project Charter	BIIA CIO/CFO; OCIO	11/15/2019
	Complete contracts for Feasibility Study and QA	BIIA CIO/CFO; OCIO	12/24/2019
PLANNING			
	Feasibility Study Complete	FS Consultant	4/30/2020
	Investment Plan updated/approved	BIIA CIO/CFO; OCIO, QA Consultant	7/15/2020
	Project Management Plan (PMP) updated	BIIA CIO/CFO; OCIO	5/15/2020
	Decision Package Developed	BIIA CIO/CFO/CAO[44]	8/31/2020
	Decision Package Approved	OCIO/OFM	4/30/2021
	Determine suitability of shared contract options (e.g. SC-CMS contract [AOC]; King County; Microsoft State Contract)	BIIA CIO/CFO/CAO	4/30/2021
	Pilot Planning	BIIA CIO/ESC/T2 BRP PM; SMEs; BA	7/31/2021
EXECUTION			
	RFP	BIIA CIO/CFO with input from ESC/T2	8/31/2021
	Proposal Evaluation	BIIA RFP Evaluation Team	7/31/2021
	Select ASB	BIIA RFP Evaluation Team	7/31/2021

[43] Project Management Body of Knowledge (PMBOK), Project Management Institute (PMI)

[44] CAO: Chief Administrative Officer – this position also serves as BRP Executive Sponsor

PMBOK[43] PROJECT PHASE	KNOWN TARGET ACTIVITIES	RESOURCES	TARGET END DATE
	Contract Negotiation	BIIA CIO/CFO/CAO; Vendor	8/31/2021
	Begin Pilot ("proof of concept")[45]	BRP Project Team[46], Vendor Project Team	10/01/2021
	End Pilot	BRP Project Team, Vendor Project Team	6/30/2022
	Go/No-Go Decision	Executive Steering Committee (ESC)	7/29/2022
	Final solution configuration for "go live" & workflow adjustment period	BRP Project Team; Vendor Project Team	9/30/2022
	Other pre-implementation activities[47]	BRP Project Team; Vendor Project Team	9/30/2022
	Full Implementation "Go-Live"	BIIA Project Team; BIIA Staff; Vendor Project Team	10/03/2022
	System Stabilization/Configuration	BIIA Project Team; BIIA Staff; Vendor Project Team	6/30/2023
CLOSE			
	Lessons Learned	BIIA CIO; BRP PM; Vendor PM; ESC	6/30/2023
	Close out project and project reporting	BIIA CIO; BRP PM; Vendor PM; ESC	6/30/2023

[45] A nine-month pilot is recommended based on the amount of time it takes to process many appeals

[46] BRP Project Team is composed of: BIIA CIO; BRP PM; BRP BA; assigned SMEs; Change Mgmt contractor; QA contractor

[47] Data migration; custom forms, letters and reports; calendar/schedule integration; notifications and alerts

10.4 Human Resources

Staffing requirements for the pilot will be determined after a solution vendor is chosen. The vendor's input will be critical to defining the scope and human resource requirements for operating a limited proof of concept (pilot). Pilot staffing will be managed within the current Board of Industrial Insurance Appeals staffing structure with the assumption the pilot staffing complement will be able to manage active ("live") appeals, reducing workload commensurately in the current case management workflow.

Information Services resources will be prioritized to support pilot system operation with a planned moratorium imposed on current system support/service requests. This will allow the current IT staffing structure to support the pilot without additional FTE augmentation.

No permanent FTE impacts are projected from implementing the new system because there are too many unknowns at this time, pre-procurement. After a period of full-implementation, given a positive "go live" decision by the Executive Steering Committee at the end of the pilot demonstration, permanent FTE impacts will be reevaluated.

Several temporary contract positions will be required during the course of the project as shown in section 11 (COTS).

11.0 Cost Benefit Analysis

11.1 Cost Estimates and Assumptions

Solution cost estimates were derived from detailed RFI responses, industry benchmarks (e.g. $/LOC[48]), actual contract costs (e.g. SC-CMS; City of Olympia; King County; IAIABC contacts) and representative projects (Office of Administrative Hearings Custom Build). These include representative costs from COTS vendors, reference projects and industry benchmarks. Procurement results will vary in part based on the negotiation of contract terms and conditions. As one example of the effect of terms and conditions on contract prices, the greater the state's requirements for contractor insurance bonding, liquidated damages and contingencies, the higher the contract costs will be.

The agency does not project any permanent FTE impacts from the project[49]. It is premature to estimate impacts to staffing levels before knowing what solution will be procured.

BRP Option Cost Estimates are listed on the following pages

[48] LOC = Lines of Code

[49] Please see section 10.4, Human Resources

Legacy System – Lines of Code (LOC) Analysis by Application/Language

				Rewrite		Migration
Application	**Language**	**LOC**	**Cost per LOC[50] Manual Rewrite**	**Cost Rewrite**	**Cost per LOC Conversion (machine assisted)**	**Cost of Conversion (machine assisted with 20% manual rewrite)**
BAIS Case Mgmt System	PowerBuilder	511,526	$10	$5,115,000	$3	$1,534,578
Print Man (application for production [offsite printing /mailing at DES]	PowerBuilder	262,301	$10	$2,623,010	$3	$786,903
Internet Filing Applications (on-line portal for claimants to file appeals)	ASP.NET	21,550	$10	$215,500	$3	$64,650
E-File (electronic filing)	ASP & ASP .Net	59,377	$10	$593,770	$3	$178,131
BESS (event scheduling interface between BAIS and MS Outlook)	VBA & ASP .Net	2439	$10	$24,390	$3	$7,317
Manual conversion required (differential at 20% of total)						$1,200,000
Totals (Estimate)				**$8,572,000**		**$3,770,000**

[50] LOC $ figures from a Seattle based software modernization firm with benchmark data from real-world conversions

Migration Costs (vendor response to RFI)

Software conversion costs including analysis: $1,961,000
On-going (annual) maintenance: $348,000

Custom Design

Functional Analysis – Business Requirement Development Complexity
The custom design alternative was estimated by categorizing *each BIIA functional requirement* by complexity to program (develop), based on experience developing the current BAIS platform, and assigning LOE (estimating analyst/programmer/tester hours by level of complexity, then adding Project Mgmt and QA resources to the project's development/design LOE calculations). A separate spreadsheet was developed incorporating the detail of these calculations. Assumes a 24 month project timeline. More than one analyst, programmer and tester resource(s) may be needed in each contractor staffing category.

Description	Hours	Cost
Business Analyst Hours	3176	$ 397,000
Expert Programmer Hours	12960	$2,073,600
Tester Hours	3670	$ 403,700
Project Manager	2000	$ 300,000
Quality Assurance	1000	$ 140,000
Total		**$3,314,000**

State benchmarking and vendor response to RFI (*actual* custom design projects of appeals case mgmt solutions)

One-time costs: $5M - $16M
On-going (annual) maintenance: $200K - $500K

COTS

RFI Results from 11 COTS vendors (extreme high and low cost vendor results removed because they represent $ outliers):

One-time costs: $385,000
On-going (annual) maintenance: $223,000

Costs for the COTS options were also benchmarked against the terms of the real-world SC-CMS contract, prorated for one site (vs 37 counties) and the City of Olympia municipal court case management system contract.

Description	Estimated Cost	Comment
Implementation	**$500,000**	Reference site was 40% less in $ costs however BIIA has more users and more customization; estimated cost adjusted accordingly
Maintenance – Annual (after probationary period)	**$320,000**	$2000/user/year.[51] BIIA may well be able to negotiate a lower rate

Normalizing the above results from multiple, credible sources yields:

One-time costs: $450,000
On-going (annual) maintenance: $250,000

(NOTE: this cost does not include data migration costs as the BIIA has not yet decided how much data in the current system needs to be migration. Cost for data migration will be included in the decision package).

[51] Two vendors we benchmarked have this pricing model with annual maintenance based on approximately $2000/user/year. Other pricing models exist some of which include transaction pricing for document efiling; transaction pricing may be more expensive over time

Proposed Solution – COTS

Project Costs (assume two year project):

	Year 1	Year 2
Project Manager	110000	110000
QA	40000	40000
Change Manager	100000	100000
Business Analyst*	100000	100000
Total	350000	350000

*To assist SMEs with configuration of the new platform

Year one costs: $800,000 (COTS one-time costs + Project Costs)

Year two costs: $600,000 (COTS on-going costs + Project Costs)

Year three to five costs: $250,000 (COTS on-going costs only)

Total estimated project costs years 1 – 5: $2,150,000

	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Solution Costs	450,000	250,000	250,000	250,000	250,000	**1,450,000**
Project Costs:						
Project Manager	110,000	110,000				220,000
QA	40,000	40,000				80,000
Change Manager	100,000	100,000				200,000
Business Analyst*	100,000	100,000				200,000
Project Cost Sub-Total	350,000	350,000				**700,000**
Total	$800,000	$600,000	$250,000	$250,000	$250,000	**$2,150,000**

11.2 Benefit Stream Assumptions

The primary financial benefit of the BRP initiative is cost avoidance. Upon departure, due to projected retirement, of the two senior developers there will not be any remaining in-house expertise to effectively maintain the existing legacy system. Moreover, the existing system exhibits significant operational constraints and forces workarounds and data entry redundancies in the core appeal management workflow processes. Therefore, the primary benefit of the new system is that it will prevent system shutdown due to departure of critical programmer resources with an important secondary benefit being an improved and integrated workflow.

If the current system is not replaced and eventually fails due to the inability to maintain it, the cost of such failure would necessitate reversion to paper based processes – the predictable outcome of system failure. Such an event would have a catastrophic impact on the Board's ability to carry out its mission. The impact of reversion to paper processes is discussed and quantified in section 7 and is summarized here in terms of cost avoidance:

- $1.1M in copying/imaging costs
- 5 Judicial Assistant FTEs at $48,000 annual salary each = $240,000 on-going annual costs

11.3 Benefits of Preferred Alternative

Benefits of the recommended alternative, selecting the "best-fit" COTS-SaaS Court Case Management solution and initiating a proof of concept limited scope pilot are:

- Offers a risk-mitigated strategy of vetting a best of breed COTS solution in a real-world OTE (operational test and evaluation [pilot]) environment
- Affords the BIIA the opportunity to adopt standardized court case management business practices
- Represents the least expensive option, in terms of COTS subscription pricing vs estimated rewrite, migration or custom design costs
- Allows for a majority of the configuration work to be accomplished during the pilot vs upon go-live, reducing implementation risk
- Does not depend upon critical programmer resources who are approaching retirement to succeed

12.0 Risk Management

This section describes the objectives of the BIIA IT portfolio risk management process as will be applied to the BRP initiative.

12.1 Risk Management Objectives

The objectives of project risk management are to decrease the probability and impact of events adverse to the project. Risk management begins during project planning and continues throughout the lifecycle of the project. Any assumptions made in the development of a plan, schedule, or resource allocation should be considered for documentation as a risk. Factors external to the project may also have an impact on the team's ability to deliver, and should be included.

12.2 Risk Management Plan

Once the project is initiated, a formal Risk Management Plan will be created. The plan will support the following risk management activities:

1. **Risk Identification** - This is the process of identifying risks that could affect the project and their characteristics. Several techniques will be utilized to identify potential risks including: review of Lessons Learned from similar projects during benchmarking; the experience of the Executive Steering Committee (ESC) members, the Executive Sponsor and the Project Manager; discussions with OCIO and other project stakeholders (Appendix D). Each identified risk will be documented in a risk log. The project team will classify the risk as either business, organizational, or technical. The risk will also be classified as internal (under the control of the ESC or the project team) or external (the result of factors over which the project has limited control).

2. **Risk Analysis and Prioritization** - For each risk identified in step 1, the team will assess the probability of occurrence using a standard probability scale (from 0.1 to 1.0) and the level of impact using a standard impact assessment matrix (from 1 to 10 based on team member judgment) in the event that the risk does occur. The product of probability and the impact yields the risk score that will help to determine risk planning. Risks that have a risk score of 6.0 or higher are considered "High" risk, those with a risk score between 2.5 and 6.0 are considered "Medium" risk, and those with a risk score less than 2.5 are considered "Low" risk. Risks so identified and categorized will be added and monitored in the project risk register.

3. **Risk Planning** - This step involves identifying an owner of the risk and devising a risk response plan for handling each of the high-priority risks identified in risk analysis and prioritization. During preparation of the feasibility study, this activity primarily involved iterative discussion with the Executive Sponsor and ESC members. As the project is formalized, the project structure defined in section 9 will manage risks with a defined escalation policy. Guidance on establishing/improving the risk planning process will also be solicited from the quality assurance consultant.

4. **Risk Control and Monitoring** - This step includes executing the appropriate risk response plan during the project lifecycle to reduce the probability of a risk occurring or to mitigate its impact should it occur. This includes monitoring the progress in handling all risks that have occurred and continuing to identify and assess new risks that may emerge throughout the project.

For purposes of the feasibility study, risk categories have been described as either business/organizational risks or technical risks. Each of these risk categories is described below and the various risks that are eventually identified in each category will be inventoried, prioritized, and appropriate risk response strategies identified as appropriate.

12.3 Business/Organizational Risks

Business risks include those risks that impact existing BIIA business operations. For example, risks in this category could include items such as the need to change existing processes and procedures, the need for organizational change management, and the need to implement standardized processes.

Organizational risks relate to the impact of the project on BIIA's organization and the organization of other partners involved in the project. Issues that should be considered in this regard include matters such as:

- Level of executive and staff support for the change being proposed.
- Agency's demonstrated ability to manage projects of this size and complexity.
- Skills and experience available to implement this approach.
- Agency's ability to manage internal and external (contractor) staff.
- Number of users impacted.
- Level of training that might be required
- Length of time BIIA has to complete the project or implement an alternative.

12.4 Technical Risks

Technical risks include issues that might impact systems analysis, programming, integration, or testing activities. A possible technical risk relative to this project might be adequacy of network bandwidth supporting state-wide access to a COTS-SaaS application.

Other examples of risks or constraints in this category may include:

- Lack of availability of personnel with the required technical skills to define all relevant business rules for new solution configuration
- Lack of availability of personnel with the required functional or technical skills to define the specifications of required forms, letters and reports
- Lack of availability of technical personnel to perform data cleansing/migration
- Lack of availability of technical personnel to write and execute a sufficiently detailed test and evaluation plan for the pilot.
- Lack of availability of functional personnel to maintain a sufficient number of proficient testers for the life cycle of the project

12.5 OCIO IT Project Assessment Tool (ITPA)

The IT Project Assessment Tool is used to assist Washington state agencies and the Office of the Chief Information Officer (OCIO) assess the cost, complexity, and statewide significance of an anticipated information technology project (RCW 43.105.245).

Running the ITPA against the BRP project on 3/10/2020 resulted in a score of 49, assessed as follows.

Below 34: No OCIO Oversight required

Between 34 – 45: Gray zone, will require review/discussion with OCIO consultant

Greater than 45: Automatic OCIO Oversight and QA

Because BRP is a Gated Funded project, it is automatically under OCIO oversight and requires external QA in any case.

12.6 Quality Assurance Strategy

Based on the risk status of this project, funding for an external quality assurance consultant has been included in the project budget. This consultant will perform quality assurance and independent, verification and validation activities including schedule, budget and deliverable review. External quality assurance is appropriate for a program of this size and complexity.

QA will be engaged as per OCIO requirements, initially for review of the Feasibility Study (FS) and later for the project. These activities may be conducted under different (QA) contracts.

Once the option recommended in this study has been accepted, and associated funding for the project has been approved, we will extend QA activities accordingly, consistent with OCIO IT Project Assessment tool scoring.

BIIA will develop appropriate project management documentation. Good documentation, a strong governance structure and effective project tracking controls reduce risk. Documentation will include a project management plan (already developed), resource allocation table, risk register and project management plans in functional areas (e.g. communications plan, quality assurance plan, risk management plan and configuration management plan). The project governance structure will assign controls with accompanying accountability. BIIA and OCIO will also include this project in their respective Information Technology portfolios for oversight and active monitoring.

13.0 Glossary

AOC	ADMINISTRATIVE OFFICE OF THE COURTS (WA STATE)
AGO	ATTORNEY GENERALS OFFICE (WA STATE)
BAIS	BOARD OF APPEALS INFORMATION SYSTEM
BESS	BOARD EVENT SCHEDULING SYSTEM
BIAJ	CASE TO BE RETURNED TO HEARING JUDGE
BMED	CASE SHOULD BE RETURNED TO THE MEDIATION JUDGE
BNAP	CASE RETURNED TO NEW APPEALS JUDGE
BPM	BUSINESS PROCESS MANAGEMENT
CNF*	CONFERENCE WITHOUT REPORTER
CONF	CONFERENCE
D&O	DECISION AND ORDER
DENY	GRANTS THAT ARE DISMISSED W/O A CONF OR HEARING BEING HELD
DEPT	RSLT OF DEPT ACTION AFTER APP GRANTED THAT CAUSES DISMISS
DIAJ	DIRECT TO INDUSTRIAL APPEALS JUDGE
ECM	ENTERPRISE CONTENT MANAGEMENT
HIAJ	CASE READY FOR ASSIGNMENT TO HEARING JUDGE
HRMO	HEARING ON MOTION
HRN*	HEARING WITHOUT REPORTER
HRNG	HEARING
JA	JUDICIAL ASSISTANT
JREV	JUDGE REVIEW OF STRUCTURED SETTLEMENT RECORD
JROP	JUDGE REPORT OF PROCEEDINGS RESULTING IN READY ORDER
L&I or LNI	THE DEPARTMENT OF LABOR AND INDUSTRIES, WORKERS' COMPENSATION AGENCY FOR THE STATE OF WASHINGTON
MEDP	TRANSFER TO MEDIATION PROCESS
MEXA	MEDICAL EXAMINATION APPOINTMENT - BIIA REQUESTED
MEXM	MEDICAL EXAMINATION
MRPT	MEDICAL REPORT
OAP	ORDERS ON AGREEMENT OF PARTIES
OAPDO	ORDER ADOPTING PROPOSED DECISION AND ORDER
OTHR	BIIA INTERNAL EVENT - EX: DIAJ
PDO	PROPOSED DECISION AND ORDER
PFR	PETITION FOR REVIEW
RCNF	REVIEW CONFERENCE
RHRG	REVIEW HEARING
RTCN	REVIEW TELEPHONE CONFERENCE
RTHG	REVIEW TELEPHONE HEARING
SC-CMS	SUPERIOR COURT – CASE MANAGEMENT SYSTEM PROJECT
SCNF	STRUCTURED SETTLEMENT PROSE CONFERENCE
SIAJ	RETURNED TO HEARING JUDGE FOR RESCHEDULING OF EVENTS
STCF	STRUCTURED SETTLEMENT PROSE TELEPHONE CONFERENCE

STIP	LETTER OR OTHER DOCUMENT STIPULATING TO AGREEMENT OR DISPUTE
TCF*	TELEPHONE CONFERENCE WITHOUT REPORTER
TCNF	TELEPHONE CONFERENCE
THG*	TELEPHONE HEARING WITHOUT REPORTER
THMO	TELEPHONE HEARING ON MOTION
THRG	TELEPHONE HEARING
TRHG	TELEPHONE HEARING WITH COURT REPORT APPEARING BY PHONE
TRHM	TELEPHONE HEARING ON MOTION WITH COURT REPORTER APPEARING BY PHONE
TRTC	TELEPHONE CONFERENCE WITH REPORTER APPEARING BY PHONE

State of Washington
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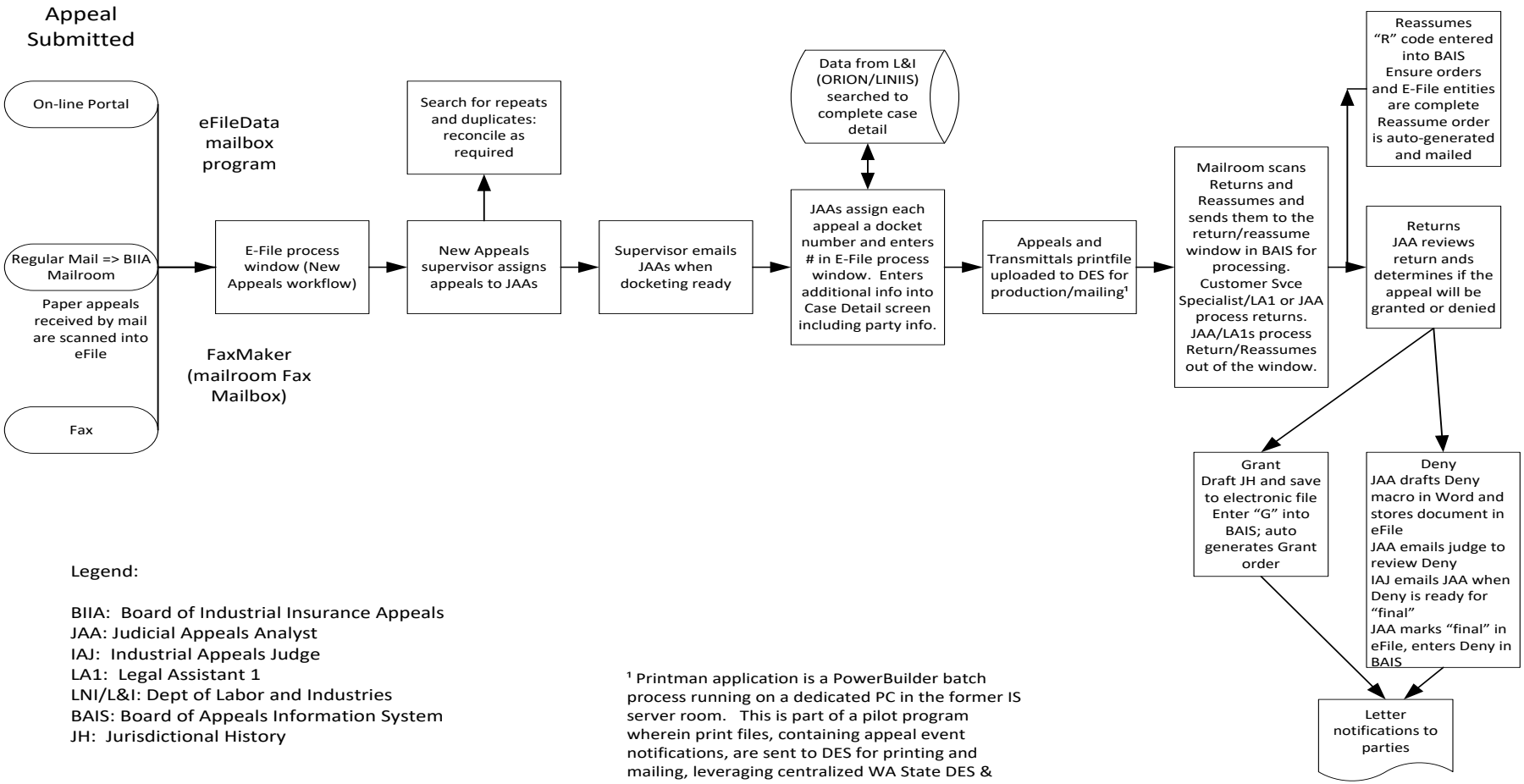
Appendix A – Current Business Process Workflows

New Appeals Workflow



Legend:

BIIA: Board of Industrial Insurance Appeals
JAA: Judicial Appeals Analyst
IAJ: Industrial Appeals Judge
LA1: Legal Assistant 1
LNI/L&I: Dept of Labor and Industries
BAIS: Board of Appeals Information System
JH: Jurisdictional History

[1] Printman application is a PowerBuilder batch process running on a dedicated PC in the former IS server room. This is part of a pilot program wherein print files, containing appeal event notifications, are sent to DES for printing and mailing, leveraging centralized WA State DES & WaTech services

State of Washington
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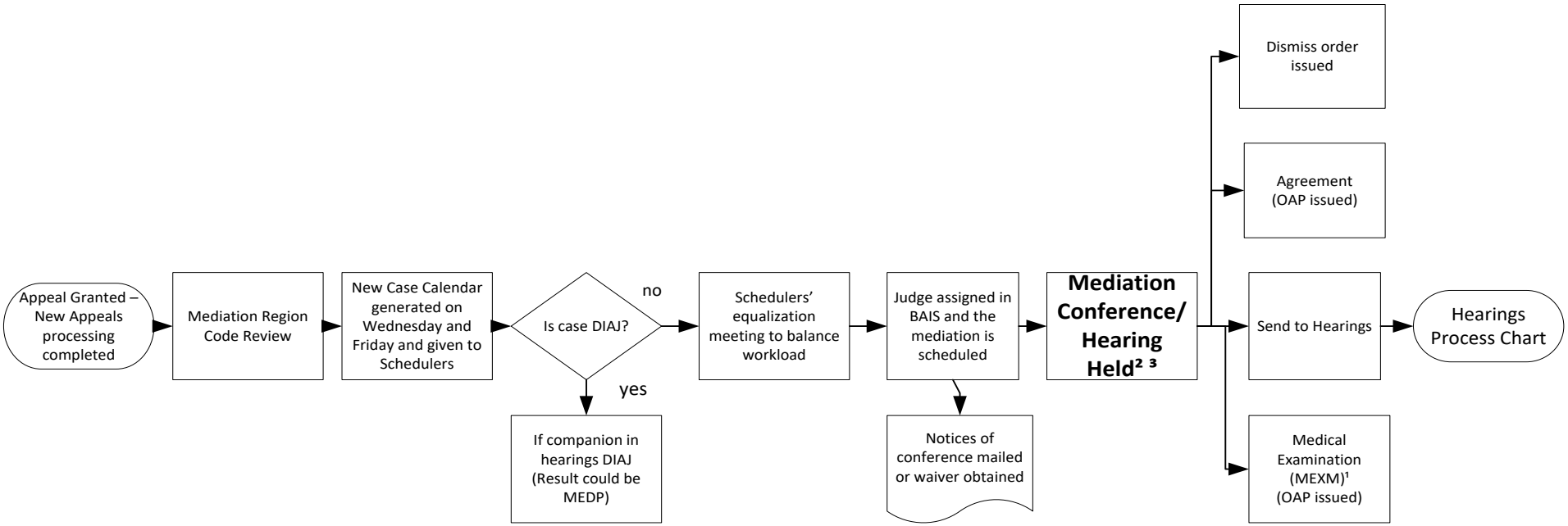
Mediation Process Workflow



Legend:

DIAJ: Direct to Industrial Appeals Judge (IAJ)
MEDP: Transfer Back to Mediation Process – Start over
BAIS: Board of Appeals Information System
HIAJ: Case ready for assignment to Hearing Judge (next phase of appeals process)
SIAJ: Returned to Hearing Judge for Rescheduling of Events
BNAP: Case returned to New Appeals Judge
MEXM: Medical Examination
OAP: Orders on Agreement of Parties
PFR: Petition for Review

Footnotes:
1. MEXM: Doctor's orders are legally binding
2. There may be multiple mediation sessions
3. Mediation Hearing, vs conference, could be to Show Cause if appealing party doesn't participate in scheduled event

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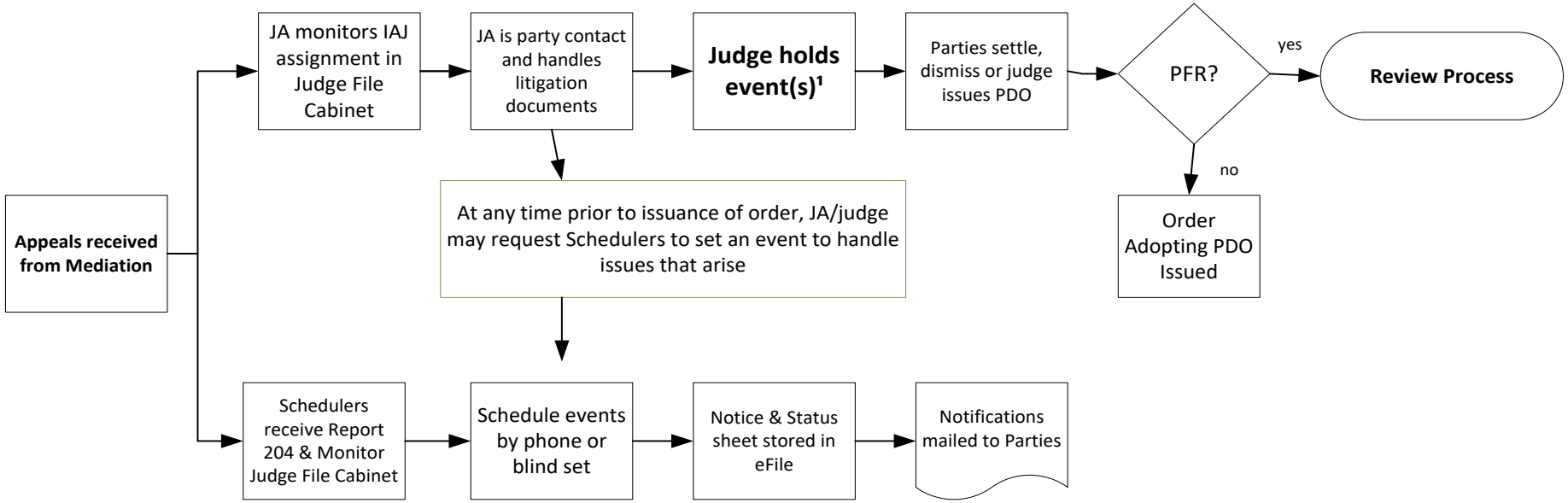
Hearings Process



Legend
JA: Judicial Assistant
Report 204: report that reflects, by judge, each case assigned to each judge (located on agency Dashboard)
PDO: Proposed Decision and Order
PFR: Petition for Review
OAPDO: Order Adopting Proposed Decision and Order

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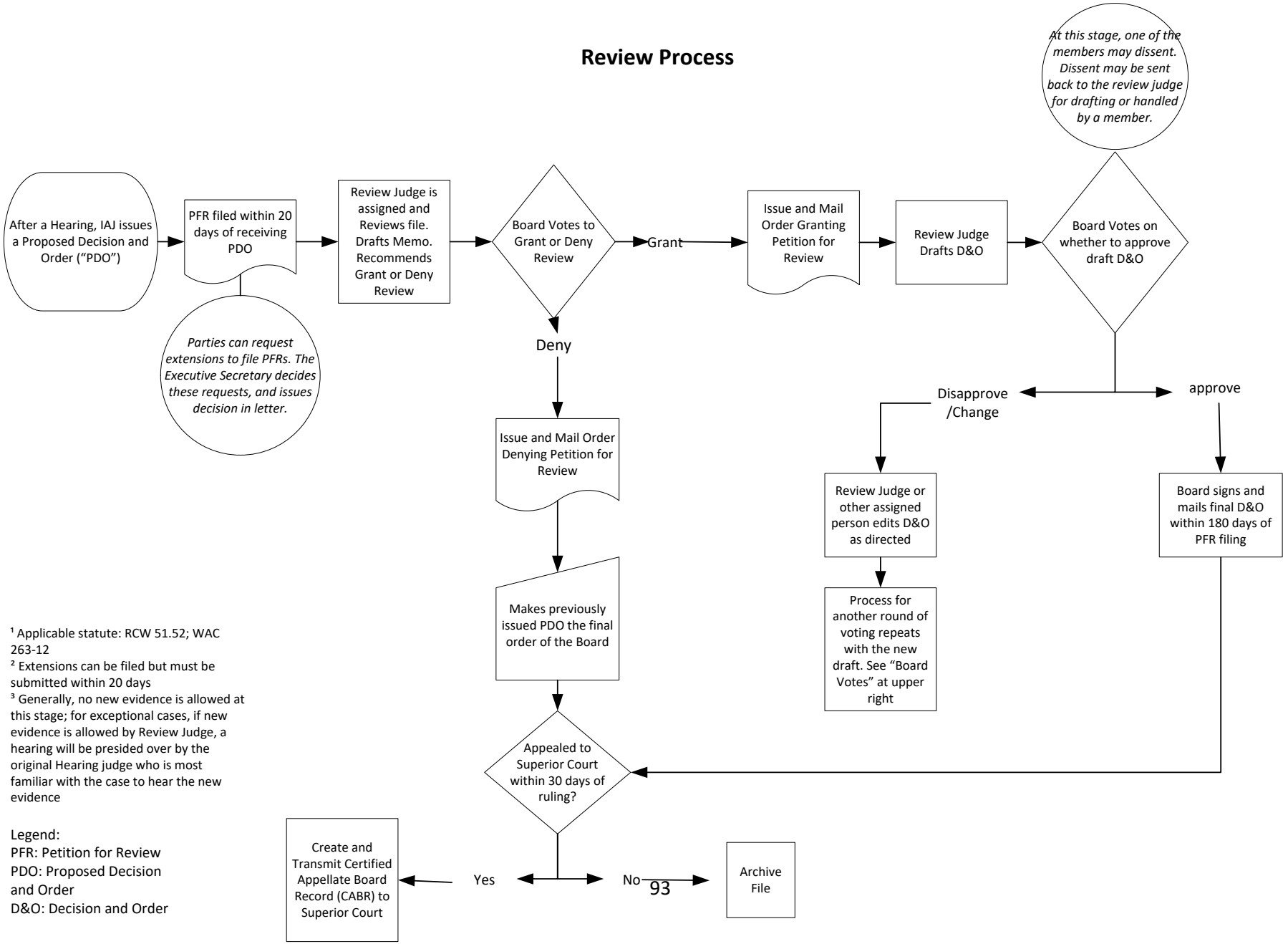
Review Process



[1] Applicable statute: RCW 51.52; WAC 263-12
[2] Extensions can be filed but must be submitted within 20 days
[3] Generally, no new evidence is allowed at this stage; for exceptional cases, if new evidence is allowed by Review Judge, a hearing will be presided over by the original Hearing judge who is most familiar with the case to hear the new evidence

Legend:
PFR: Petition for Review
PDO: Proposed Decision and Order
D&O: Decision and Order

State of Washington
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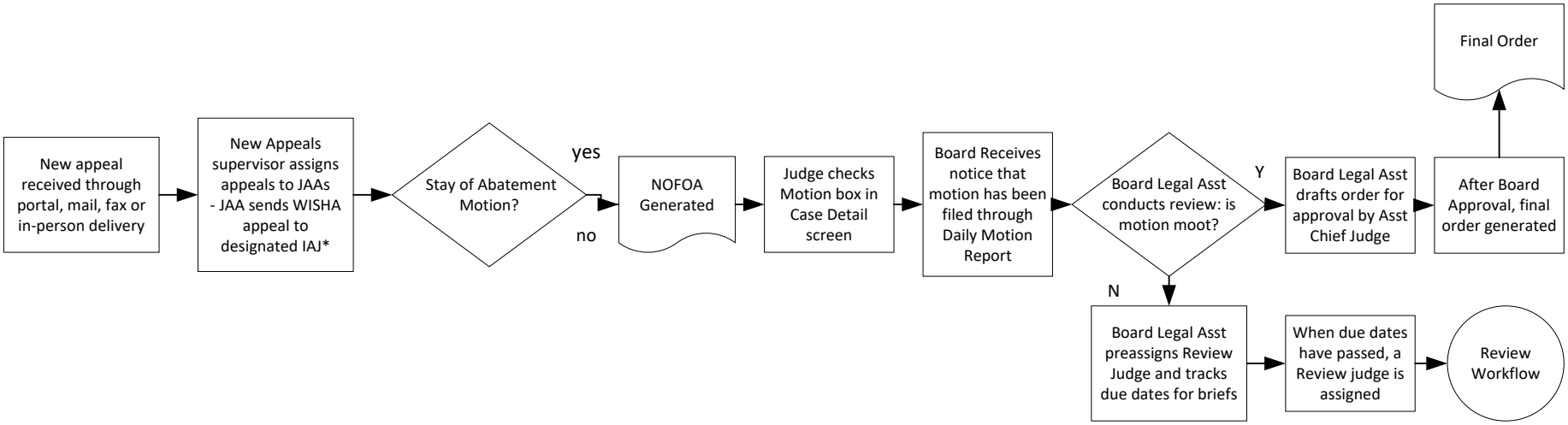
WISHA Appeals Workflow



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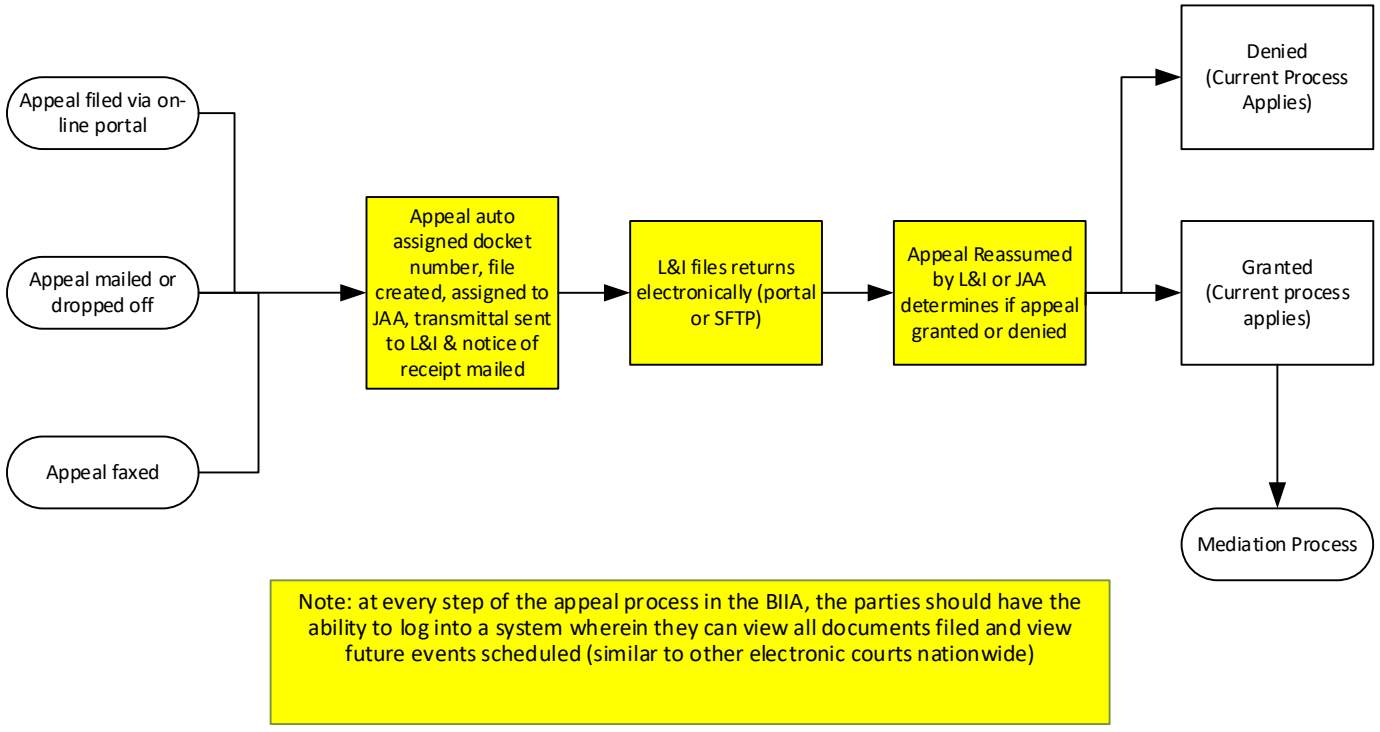
NOFOA: Notice of Filing of Appeal

* Cheryl Carlson or alternate

[1] Printman application is a PowerBuilder batch process running on a dedicated PC in the former IS server room. This is part of a pilot program wherein print files, containing appeal event notifications, are sent to DES for printing and mailing, leveraging centralized WA State DES & WaTech services

[2] Technical compliance with WAC 263-12-059, Appeals arising under the Washington Industrial Safety and Health Act (WISHA)

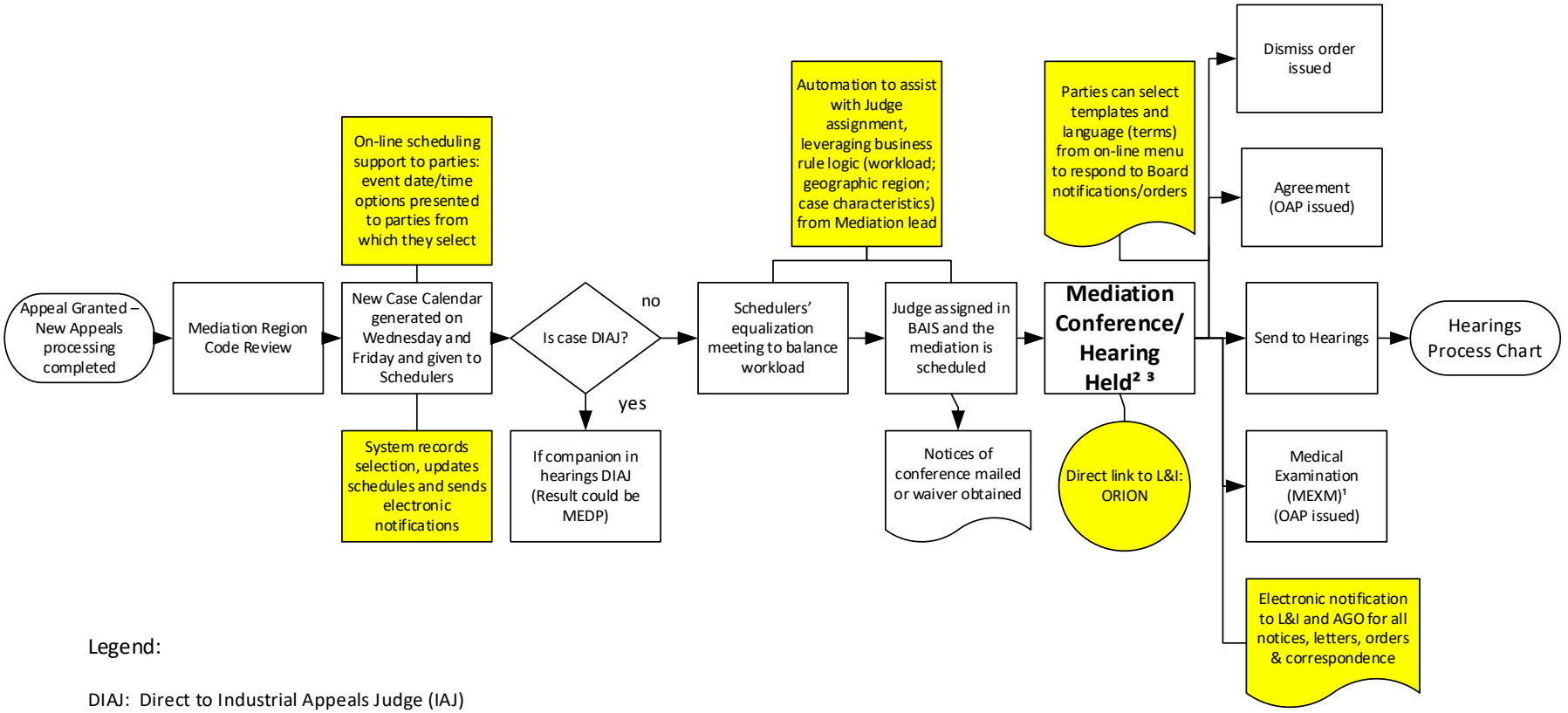
New Appeals – Future State



Note: at every step of the appeal process in the BIIA, the parties should have the ability to log into a system wherein they can view all documents filed and view future events scheduled (similar to other electronic courts nationwide)

State of Washington
Board of Industrial Insurance Appeals

Mediation Process Workflow – Future State



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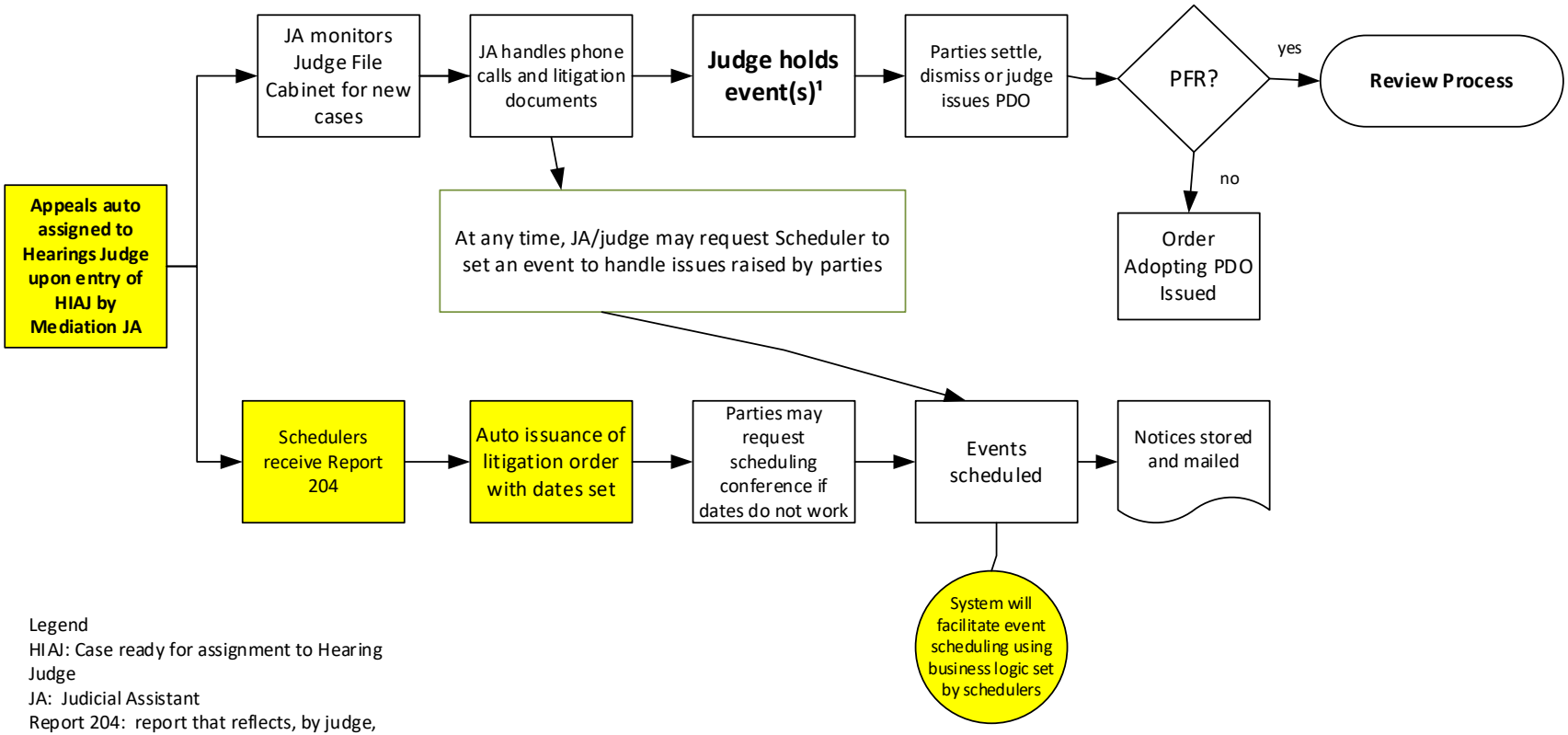
Hearings Process – Future State



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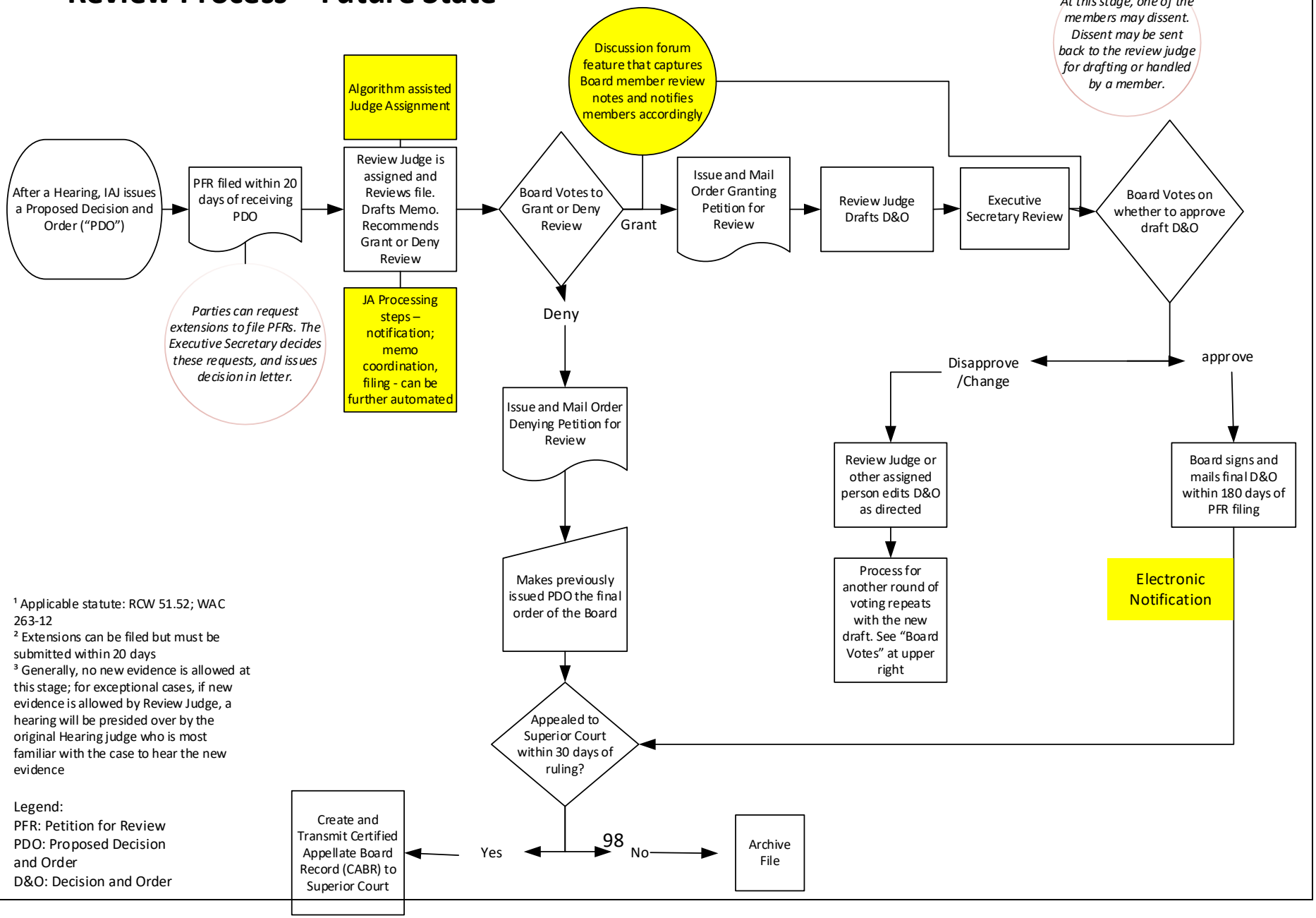
Review Process – Future State



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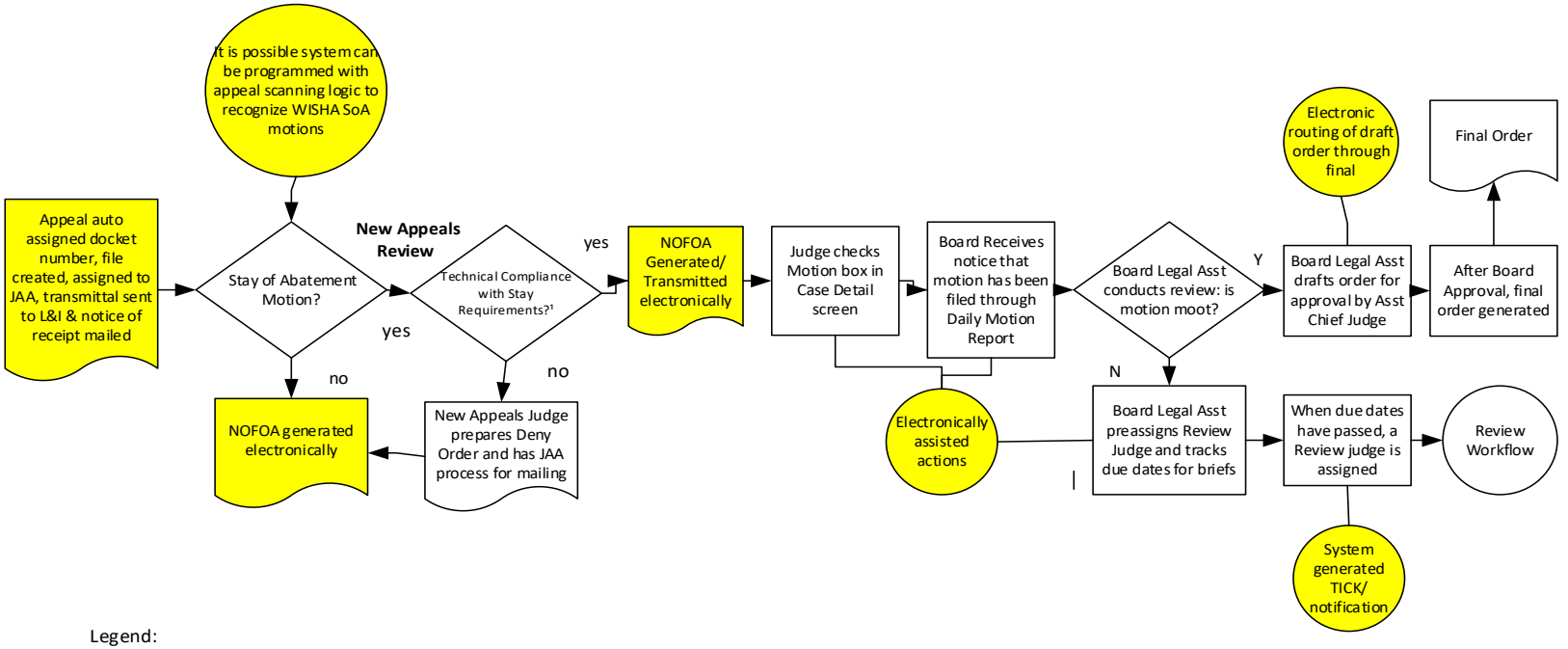
WISHA Appeals Workflow - Future State



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[1] Technical compliance with WAC 263-12-059, Appeals arising under the Washington Industrial Safety and Health Act (WISHA)

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State of Washington
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Appendix C – External Customers/Stakeholders

External Customers of an integrated Appeal Case Management System

Principal customers:

- Injured workers appealing injury claim decisions from the Dept of Labor and Industries (L&I) & their representatives (attorneys, lay representatives)
- Employers appealing L&I decisions regarding their workers' injuries or decisions concerning their premiums
- Healthcare providers
- Industry (companies) – appealing WISHA related decisions including Stay of Motions

Additional Stakeholders:

- The Department of Labor and Industries
- The Attorney General's Office
- Washington State County Superior Courts
- Court reporting firms: file depositions on behalf of law firms. Also, there is a court reporting firm that files transcripts as a contracted entity of the BIIA

Appendix D – Business Requirements

Business Requirements – Industrial Insurance End to End Appeal Case Management System

Intake/General

No.	Title	Description
1	Internet Portal and alternate appeal intake modes	The system shall support multi-modal appeal submission formats, including a secure, on-line, **externally facing internet portal** enabling industrial insurance appeal (i.e. workers compensation, WISHA, Crime victim, Provider, Employer Premium) filing by claimants; a data entry module for supporting paper (appeal applications by mail) appeal intake by BIIA staff; and an automated fax submission option. • System will support editing/validation of data entries by appellant for on-line appeal submissions and, upon successful/complete submission of appeal record information, send electronic (email, text, SMS) confirmation to appellant. [52] • System will support a party's filing of a completed interactive form/template available from an on-line menu of documents/templates that facilitate responding to Board notifications/orders, accomplishing settlements, withdrawals, and other common pleadings • Secure portal will support access by parties/duly appointed representatives to view status of their appeals, retrieve documents and provide a channel by which parties can receive notifications about pending events and document tracking information and update claimant contact information
2	Automated Intake	Supports end to end appeal filing capabilities to allow preparation/completion of an initial appeal case file for grant/deny determinations (see New Appeals workflow in Business Process section of the Feasibility Study). Supports facilitated document submission to include a Jurisdictional History summary intake form.
3	Correspondence/Forms Generation	Automated correspondence/forms support – ability to build custom forms/macros within the

[52] Required intake information is listed on page 11

No.	Title	Description
		case management application - without an IS service request (compatible with Word)
4	Docket Number Assignment	The system shall support sequential Docket Number assignment to each case, maintaining record integrity/continuity with BIIA's historical record database (docket number = primary case file key)[53]
5	Electronic Document Generation	Document generation, including the ability to modify and create custom MS Word, or documents accepted by Word, templates as needed, for preparation of orders, decisions, memos and other correspondence.
6	Electronic Filing	Electronic file system for storage and use of documents created and received for appeals
7	Electronic Signature	Electronic Signature capability for judges to authenticate and assign their signatures to orders, decisions and correspondence. Can be addressed with third party product(s).
8	Integrated Document Management	Electronic document scanning, filing, move, copy and search features. Document identification, classification, reclassification (by type), modification and permission assignment. Copy, paste and move features associated with Case Consolidation described below as well as within the application in general. Relate documents to specific cases/dockets during scanning through an integrated interface.
9	Integrated tele/video conferencing	Integrates/interfaces with third party tele/video-conferencing products to support mediation and hearing events. Facilitates scheduling and holding these events. See also Integrated Calendaring below.
10	Integrated Scheduling	Integrated Calendar and Facilitated Event Scheduling ("smart appointing") – facilitation of event confirmation (consensus/agreement on date/time) among impacted parties to each case, with date de-confliction /reconciliation. This feature may involve presentation of several

[53] BIIA employs different docket numbering styles. The standard is the seven number style. WISHA appeals are all two digit year followed by W and then four digits (e.g. 20 W0259). Other letters used are C for Crime Victim. P for Provider, L for LEOFF, and, rarely, R for Right-to-Know. The Board may consider eliminating the letter designations, and adopting a standard docket numbering convention for all appeal types.

No.	Title	Description
		date/times from which to choose, presented to concerned parties, in priority fashion, with the system selecting the option that meets most of the parties' requirements, then making notifications and performing requisite judge, staff and room scheduling functions. • Integration with Outlook (calendar, meeting scheduling and email) is a required feature • Direct scheduling of events requires the minimum number of user steps possible • Integrated capability (in a window or drop-down dialog box in system's scheduling function) to request interpretive and security services – this could be in an "Interpretive services" or "Security services" processing window respectively • Ability to add and integrate "non-docket" (non-judicial) calendar events into an integrated "one-view" calendar such as administrative and training meetings, AGO availability and personal appointments
11	Judicial eBench "Dashboard" GUI	Customizable Graphical User Interface (GUI) for judges and staff that supports the following features: • Displays primary information required by judges and staff to manage, hear and process WC appeals, constituting a "one stop shopping home page" display customized to the individual • Displays assignments and cases including status and next steps (events) and actions pending/waiting and responsible parties for those actions • Collaborative "to do" list or work queue where anyone (staff or judge) assigned to that case can enter notes, tasks, requests, or reminders and which supports work tracking and completion of assignments Interface option for events, tasks and reminders to populate Outlook
12	Jurisdictional History (JH)	The system shall support automated compilation of a Jurisdictional History during

No.	Title	Description
		the appeal intake process from source documents filed by the appellant. Events, key dates and previous decisions will be compiled into a draft summary JH to be reviewed/edited by BIIA appeal intake staff (New Appeals) – see Automated Intake requirement above.
13	Mobile Access	BIIA judges represent a mobile workforce with many operating on a state-wide or regional circuit to hear cases. • Web-Access to all case management application functions including remote file and print • A mobile app supporting primary features of this requirements set, specifically, calendaring, appointing/assigning work, entering notes, and receiving reminders ((tickle list of assigned tasks), is required.
14	Multi-language capable	System shall support multiple languages for intake (portal interactions with claimants and their representatives) including Spanish

15	Records Management – Public Disclosure	System will support management of Public Records Requests in accordance with RCW 42.56 (implementation of WA State Public Records Act), including:
		• Managing timetable for Public Records requests
		• Protection of public records containing personal or sensitive information
		• Retention of records: records will be retained a minimum of six years after a final order is issued
		• Administration
		  • Identifying records subject to public disclosure
		  ○ Identifying/managing exempted records
		  • Managing copying charges
		  • Destruction of records: purging records according to retention schedule
		  • Supporting transfer of case data to state archives according to date parameters configurable by user

16	Voice Recognition Software (VRS)	The system shall be support VRS file upload/third party VRS solution integration as part of its file management/storage capabilities

Appeals Case Management

No.	Title	Description
17	Integrated end to end appeal case management – workflow support requirements	The *integrated system,* featuring a single and centralized GUI, shall support end to end appeal case management, tracking and review, through the four principal BIIA appeal process stages, from intake (new appeals) to mediation to hearings and final review and represent/support a complete industrial insurance claim appeal system of record, tracking, update and notification capabilities plus a searchable database. System will support complete workers compensation claim appeal life cycle management meeting the requirements described in this attachment. At a high level, the system will support: • The filing of an appeal • The filing of supporting documents • The filing of a motion and tracking of motions entered by any participants to the case • The filing of a settlement/coordination of an agreement • Assignment of judges at different stages of appeal • Communications with parties including presentation of case status • Maintaining a case log (e.g. correspondence, depositions, exhibits) • Scheduling of events • Status of case and next steps (events) • Support Interlocutory appeal processing • Differential tracking of motions[54] • Ability to reactivate inactive or closed cases The appeals case management system supports the workflow detailed further below in the four flowcharts (New Appeals, Mediation, Hearings, Review)
18	The system shall support New Appeals workflow	The system shall support New Appeals workflow including but not limited to the following processes: • Docketing of new appeals, initial identification of and entry into BAIS all parties to whom notifications will need to be sent, and other tasks attendant to assuring

[54] (a) to the Board's Executive Secretary (stay of benefits, stay of abatement, post final order motions to reconsider or vacate), (b) Interlocutory Motions to the Chief Judge, and (c) procedural motions to the hearings judge.

No.	Title	Description
		the Notification of Appeal is sent to L&I and that, when the return is received, the appeal is denied or granted. • For closed dockets, review of notification (process email message) that something has been filed in the docket and determine what, if any, further action or referral may be needed. • Customer point of contact. The New Appeals unit handles all new appeal inquiries as well as general informational inquiries and other customer inquiries where it cannot be determined if a specific judge is already assigned. • Facilitation of the preparation of Jurisdictional Histories (JH) including providing a direct access interface to the Department of Labor and Industries' ORION and LINIIS systems for JH compilation For more detail regarding the New Appeals workflow, see the New Appeals workflow diagram and narrative description in the Feasibility Study
19	The system shall support Mediation workflow	The system shall support Mediation workflow including but not limited to the following processes: • Mediation region code review • Calendaring and scheduling of mediation sessions, judge assignment and ability to balance workload among judges • Transmission of essential case information to mediation judge • Order generation (e.g. dismiss order; agreement (OAP), Medical Examination) • Notice generation and distribution For more detail regarding the Mediation workflow, see the Mediation workflow diagram and narrative description in the Feasibility Study
20	The system shall support Hearings workflow	The system shall support Hearings workflow including but not limited to the following processes: • Judge's work queue/filing cabinet capability including current (two week look-ahead) assignments, tasks and status of each

No.	Title	Description
		• Report generation (e.g. report 204) of each pending case in Hearings stage by judge assigned and status information on each • Supports creation of case management summary for Hearing event, from previous appeals stage information (events, motions, outcomes, orders) • Supports preparation of order through form automation and notification of parties For more detail regarding the Hearings workflow, see the Hearings workflow diagram and narrative description in the Feasibility Study

21	The system shall support Review workflow	The system shall support Review workflow including but not limited to the following processes:
		
		• Supports claimant preparation/submission of Petition for Review (PFR)
		• Supports capture of PFR filing date/times and flags compliance issues with same (claimants have 20 days to file PFR after receiving Proposed Decision and Order (PDO) from previous stage, Hearings)
		• Supports capturing and adjudicating extension requests by BIIA Executive Secretary
		• Supports Review Judge workflow:
		  ○ Case summary review
		  ○ Memo drafting
		  ○ Transmission to Board for
		• Facilitates electronic voting by three-member Board on Review Judge's recommendation
		  ○ Polls Board members for their votes
		  ○ Returns a result and posts result to case record
		• Supports preparation of final Decision and Order (D&O)
		• Transmission of order
		• Notification of parties
		• If claimant opts to appeal further to Superior Court, system shall facilitate preparation/transmission of Certified Appellate Board Record (CABR)
		
		For more detail regarding the Review workflow, see the Review workflow diagram and narrative description in the Feasibility Study

No.	Title	Description
22	Review of Post PDO and Final Order (PPFO) Motions	The system shall support processing PPFO motions. During the course of an appeal, or after the final order has been issued, a party or parties file a motion which requires a decision by the Board. Most commonly these are motions to vacate a final order, motions to reconsider a final order, motions to correct a final order, requests to set attorney fees, and motions for sanctions. The Board places the motion in a work cycle similar to the process of reviewing a proposed decision and order.
23	050 Stay Motions (Review of Motions to Stay Department Orders Pending Appeal)	When an employer appeals an industrial insurance order, the employer has the right to request that the Board stay the effect of the Department order until the appeal is decided. These are called *motions to stay benefits* or *050 stay motions*. The Board places the motion in the work cycle similar to the process of reviewing a proposed decision and order. RCW 51.52.050(2)(b) sets forth the requirements for the motions.
24	Interlocutory Review	The system shall support the Interlocutory Review process. An Interlocutory Review request is filed by a party when they do not agree with an action taken by a Hearings judge. The interlocutory review may be requested at any time during pendency of a case in Hearings prior to the issuance of an Order on Agreement of Parties, Dismissal or Proposed Decision and Order. If after review it is determined the party's request is affirmed, the matter is referred back to the judge for further consideration. The Interlocutory Review process is modeled in flow diagrams contained in the Current/Future Business Process documents.
25	Affidavits of Prejudice	The system shall support the processing of Affidavits of Prejudice. An Affidavit of Prejudice may be filed by an appellant when he or she believes, for any reason, that bias exists in the judicial appeals process. The basic flow for an Affidavit of Prejudice is similar to that for Interlocutory Review. A workflow diagram is contained in the Current Business Process document.
26	Claim Resolution Structured Settlement Agreement (CRSSA)	The system shall support creating and processing CRSSAs – structured financial settlement agreements. CRSSAs were created as a way for parties to resolve all aspects of an allowed claim, other than medical benefits. Agreements can be filed at any stage of the BIIA's appeals process and

No.	Title	Description
		even at Superior Court. CRSSAs can also be filed on claims where there are no active appeals pending. The agreements are subject to multiple criteria defined by statute and WAC.[55]

Additional Requirements

No.	Title	Description
27	Advanced Search	The system shall support simple and advanced search capability to identify cases and retrieve case/document files by key words and multiple parameters to include dept claim number, docket number, claimant identification information, employer name, and assigned/active judge • System shall support search and identification of case information by: Claim number; docket number; full name and partial name of injured worker; representing party (attorney)
28	Automated Docketing	Docket number assignment and reconciliation (search for and management of duplicates) upon receipt of appeal.
30	Business Rule Management	The system shall support facilitated management of business rules – e.g. in separate files/table for local configuration
31	Case Consolidation	Classify and track relationships of associated cases/injured workers. Facilitated capability to identify, associate, reconcile and consolidate (merge) duplicate or related appeal cases by docket number (cases with same name/injury) in real-time, including at time of event
32	Digital Recording	Electronic transcript management. Incorporation of (current process) Court Reporter transcriptions into the electronic case file through voice recognition or other suitable technology. Can be addressed with third party products.
33	Electronic Document Format	E-filing documents will be in PDF format. Media and graphical exhibits will be in MP4 format.
34	Electronic Voting	Board has three executive members who vote on referred cases. Electronic referral and voting capability are desired features.
35	Facilitated entry of party contact information	An improved way for inputting party contact information that reduces risk of duplication and includes one-stop location for recording notes/updates.

[55] RCW 51.04.063 describes the terms, conditions and timing requirements associated with Structured Settlement Agreements

36	Financial adjudication	The system shall support adjudication and execution of judicial orders asserting financial payment/structured claim settlement
37	Gender Identification	Flexibility in claimant gender identification – allows specification consistent with claimant gender identity
38	Generation of portable print files for off-site production	Generation of portable print files containing notifications, decisions, orders and correspondence to parties for off-site printing/mailing at the Dept of Enterprise Services (DES); record format: PDF
39	Hearing Judge Assignment	Current process involves manual assignment upon transition from Mediation to Hearings, then manual entry of assigned judge into BAIS. Automate the judge assignment process upon termination of Mediation without settlement.
40	Integration of the New Appeals Judge deny order approval process	Integration of the New Appeals Judge deny order approval process so that it doesn't rely on emails as with present email dependent application
41	Interest	Ability to capture and report interest accrued on cases where final orders direct retroactive payments by the department to injured workers – includes a reporting capability to provide information on interest calculated pursuant to orders and a feature to transmit an "interest accrued" finding to the department
42	Interpretive and Security Services	Integrated capability (in a window or drop-down dialog box in system's scheduling function) to request interpretive and security services – this could be in an "Interpretive services" or "Security services" processing window respectively • Also needed is a check box or other method to confirm the services were provided and a reporting capability to provide a list of interpretive and security services delivered over a period of time by provider (to confirm service delivery prior to payment)
43	Master Address File / Address Validation API	Master Address File creation, update, deletion and management. Ability to enter multiple address entries in case records. Ability to enter clarifying notes associated with address entries for audit trail purposes. Ability to associate or mirror entries in the Master Address Record with Party information in the case management system for notification purposes.
44	On-line Dispute Resolution (ODR)	Use of technology to broker resolution of disputes. May serve an ancillary or preliminary role in the Mediation phase of appeal processing. Executes processes involving

		negotiation, mediation and arbitration to attempt to bring about agreement before involvement of formal mediators (judges). May be addressed with third party products.
45	Reasonable Accommodations	Ability to capture reasonable accommodations for claimants with special needs in case file
46	Reporting/Analytics	Capability for performance reporting against specified timeliness and productivity standards (i.e. compliance reporting). Flexible analytics to report against user defined performance parameters. See separate reports document for a required reports listing. NOTE: this does not mean data warehouse or data mart. Just the ability to export to Office products.

Required Intake information:

Washington State Board of Industrial Insurance Appeals

(1) **Workers Compensation appeals:**

(a) Name and address of the injured worker
(b) Name and address of the employer
(c) Department of Labor and Industries (L&I) claim number
(d) Date of injury or occupational disease
(e) Date of the L&I decision being appealed
(f) County in which you would like proceedings to be held
(g) What you are asking for (remedy requested)

(2) Crime Victims' Compensation Act appeals**.**

In appeals arising under the Crime Victims' Compensation Act (chapter 7.68 RCW), the notice of appeal should also contain (in addition to the above information under (1):
(a) The time when and the place where the criminal act occurred;
(b) The name and address of the alleged perpetrator of the crime; and
(c) The nature of the injury.

(3) Employer Premium appeals:

(a) Name and address of firm
(b) Firm number assigned by L&I
(c) Notice & Order of Assessment No.
(d) Date of L&I decision being appealed
(e) Remedy requested & rationale

(4) Washington Industrial Safety and Health Act (WISHA) appeals:

(a) The name and address of the appealing party (and representative).
(b) The inspection number and date of the CNR being appealed.
(c) The reasons why you believe L&I's decision is incorrect.
(d) The name and address of any union representing affected employees.
(e) The county in which you would like proceedings to be held.

(5) Provider appeals. The Department of Labor and Industries (L&I) makes decisions about a provider's eligibility to provide services to industrially-injured workers as well as decisions regarding payments to providers for services delivered to injured workers. Providers affected by such decisions may file an appeal containing the following information:

(a) Your name and address.
(b) Your provider number.
(c) Date of L&I's decision, and a copy of the decision being appealed.
(d) The reasons why you disagree with the decision.
(e) County in which you would like proceedings to be held.

BIIA WORKFLOW LEXICON/GLOSSARY INCLUDING EVENT TYPE CODES USED IN BAIS

AGO	ATTORNEY GENERAL'S OFFICE
BAIS	BOARD OF APPEALS INFORMATION SYSTEM
BIAJ	CASE TO BE RETURNED TO HEARING JUDGE
BMED	CASE SHOULD BE RETURNED TO THE MEDIATION JUDGE
BNAP	CASE RETURNED TO NEW APPEALS JUDGE
BRP	BAIS REPLACEMENT PROJECT
CNF*	CONFERENCE WITHOUT REPORTER
CONF	CONFERENCE
D&O	DECISION AND ORDER
DENY	GRANTS THAT ARE DISMISSED W/O A CONF OR HEARING BEING HELD
DEPT	RSLT OF DEPT ACTION AFTER APP GRANTED THAT CAUSES DISMISS
DIAJ	DIRECT TO INDUSTRIAL APPEALS JUDGE
HIAJ	CASE READY FOR ASSIGNMENT TO HEARING JUDGE
HRMO	HEARING ON MOTION
HRN*	HEARING WITHOUT REPORTER
HRNG	HEARING
JA	JUDICIAL ASSISTANT
JREV	JUDGE REVIEW OF STRUCTURED SETTLEMENT RECORD
JROP	JUDGE REPORT OF PROCEEDINGS RESULTING IN READY ORDER
L&I or LNI	THE DEPARTMENT OF LABOR AND INDUSTRIES, WORKERS' COMPENSATION AGENCY FOR THE STATE OF WASHINGTON
MEDP	TRANSFER TO MEDIATION PROCESS
MEXA	MEDICAL EXAMINATION APPOINTMENT - BIIA REQUESTED
MEXM	MEDICAL EXAMINATION
MRPT	MEDICAL REPORT
OAP	ORDERS ON AGREEMENT OF PARTIES
OAPDO	ORDER ADOPTING PROPOSED DECISION AND ORDER
OTHR	BIIA INTERNAL EVENT - EX: DIAJ
PDO	PROPOSED DECISION AND ORDER
PFR	PETITION FOR REVIEW
RCNF	REVIEW CONFERENCE
RHRG	REVIEW HEARING
RTCN	REVIEW TELEPHONE CONFERENCE
RTHG	REVIEW TELEPHONE HEARING
SC-CMS	SUPERIOR COURT – CASE MANAGEMENT SYSTEM (WA STATE)
SCNF	STRUCTURED SETTLEMENT PROSE CONFERENCE
SIAJ	RETURNED TO HEARING JUDGE FOR RESCHEDULING OF EVENTS
STCF	STRUCTURED SETTLEMENT PROSE TELEPHONE CONFERENCE
STIP	LETTER OR OTHER DOCUMENT STIPULATING TO AGREEMENT OR DISPUTE
TCF*	TELEPHONE CONFERENCE WITHOUT REPORTER
TCNF	TELEPHONE CONFERENCE
THG*	TELEPHONE HEARING WITHOUT REPORTER

THMO	TELEPHONE HEARING ON MOTION
THRG	TELEPHONE HEARING
TRHG	TELEPHONE HEARING WITH COURT REPORT APPEARING BY PHONE
TRHM	TELEPHONE HEARING ON MOTION WITH COURT REPORTER APPEARING BY PHONE
TRTC	TELEPHONE CONFERENCE WITH REPORTER APPEARING BY PHONE
WISHA	WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT

Appendix E – Technical Requirements

General Requirements		
1.1	Single Integrated Appeals Case Management System	The BRP replacement solution will represent a completely centralized technology *without* disparate or interfaced subsystems as core components. The integrated solution must be capable of reliably serving as the agency's single system of record for appeals processing and fully capable of addressing the above listed business requirements.
1.2	Business Rules Management	The system shall provide business rules management capabilities that allow the agency to incorporate, track, and modify business rules that, in turn, will predictably modify the behavior of the system.
1.3	Data Conversion	The vendor shall provide a data conversion plan that supports migration of legacy data sets to the new architecture and will lead the effort in executing the legacy system data conversion plan.
1.4	Interfaces	Electronic messaging capability will be required to notify the Dept of Labor and Industries, the Attorney General's Office (only for cases involving an AGO attorney) and parties to appeals.
1.5	Project Management Plan	The vendor will collaborate with the BIIA Project Manager in developing and updating a project management plan that includes delineation of tasks, dependencies, timeline, resource allocation and a risk management plan/issues migration process. The vendor's project manager will participate in reporting progress against the plan and will also contribute to issue identification/ resolution discussions at regularly scheduled project steering group meetings.
1.6	Rollout	The vendor will support existing to new commercial off the shelf system cutover by developing a legacy system cutover and new module rollout plan in collaboration with the BIIA Project Manager to include coordinating tasks, timelines and resources. The vendor will provide resources to prepare for and execute the rollout plan including supporting system testing and performance during the cutover period and through stabilization.
1.7	Testing	The vendor shall support and successfully perform in the testing of all components of the new system through:

		• Collaboration with BIIA in developing a Test Plan and Test Scripts that support BIIA's Business Rules, and which leverages experience from previously implemented jurisdictions • Provision of system test and/or QA environments • Provision of appropriate test tools • Test Plan execution • Resolution of all test defects • Assistance in developing and executing end-to-end test routines including validating performance of internal and external interfaces
1.8	Training	The vendor shall provide comprehensive training support for the new system. Training support will include, but not be limited to, the following components: • "Train the Trainer" support to include comprehensive training in the new solution's features, functions and user interface, reporting and other capabilities to a cadre of BIIA staff designated as case management solution trainers. Training will be sufficient in scope to allow trainers to become proficient and provide subsequent training to impacted staff • Training documentation • Computer Based Training (CBT), Learning Management System (LMS), or web based training platform/curriculum
Technical		
2.1	Web-enabled	The application will operate as a Software as a Service (SaaS) application in a web-enabled environment, fully feature-accessible to all staff with an internet connection
2.2	Service Oriented Architecture (SOA)	Application suite is built upon an SOA (service oriented architectural model) to facilitate sharing of information with other agencies and jurisdictions, to allow ease of configuration and component reuse.
2.3	Standard Graphical User Interface (GUI)	The system shall provide for and support an intuitive, standard Graphical User Interface (GUI) throughout the application.

2.4	Object/Table Driven	The system shall provide the capability to be object/table-driven with online screens to control parameters.
2.5	Data Conversion	The vendor shall provide a data conversion plan that supports migration of legacy data sets to the new architecture and will lead the effort in executing the legacy system data conversion plan.
2.6	Training	The vendor shall provide training support relative to implementing and maintaining the new system. It is expected that training support will include, but not be limited to, the following components: "Train the Trainer" support to include comprehensive training in the new solution's features, functions and user interface, reporting and other capabilities to a cadre of BIIA staff designated as COTS solution trainers. Training will be sufficient in scope to allow trainers to become proficient and provide subsequent training to Public Benefits Specialists (PBS), also known as Financial Workers Training documentation Computer Based Training (CBT) or web based training platform/curriculum
2.7	Testing	The vendor shall support the testing of all components of the new system through: Collaboration with BIIA in developing a Test Plan and Test scripts, BIIA's Business Rules and previous jurisdiction experience Provision of system test and/or QA environments Provision of appropriate test tools Test Plan execution Resolution of test results

		Assistance in developing and executing end-to-end test routines validating performance of internal and external interfaces
2.8	Disaster Recovery	The vendor shall provide a structured plan for the rapid and orderly return to the prior (current) version or environment if the transition/promotion effort for any element of the new environment (during cutover and for the period up to final acceptance) begins to fail in production.
2.9	Business Rule Related Changes to System	The system shall enable BIIA staff to implement business rule related changes including end to end verification prior to production release.
2.10	Archive reporting	The system shall provide a method to access, query, and report against historical data.
2.11	Centralized Relational Database	The system shall use a common, centralized database that uses current relational database technology. The system will leverage, employ or be compatible with the latest version(s) of MS SQL Server, specifically MS SQL 2014.
2.12	Configurable	The system shall be configurable with appropriate drop down lists, options, business rules, user profile options and parameters to tailor the system to BIIA's needs.
2.13	Conform to BIIA Technical Architecture	The system shall conform to BIIA/State Technical Architecture policies and standards as presented in section 8 of this Feasibility Study and at: https://ocio.wa.gov/policy/technology-policies-and-standards
2.14	Customer Focused	The system shall be customer focused with accessible/searchable appeal case records – by user and appealing party. The externally facing portal may be used for this purpose
2.15	Data updates	The system shall support a relational data model (e.g. a single record entry/update takes effect throughout the entire system)
2.16	Descriptive error messaging	The system shall provide the capability to provide clear and descriptive error messages.

2.17	Record retention	The system shall provide the capability to meet provisions of the records retention schedule as defined by Washington State law and BIIA records management policy.
2.18	Effective-dated Transactions	The system shall provide the capability to register, manage and process effective-dated transactions.
2.19	Electronic access	All system documentation and manuals shall be available and accessible electronically.
2.20	Internet Self-Service Functionality	The system shall have Internet based self-service functionality to allow customers to be able to complete selected transactions on their own via the Internet.
2.21	Web-Enabled	The system shall be an Internet/Web-enabled application operating over IP with Virtual Private Networking (VPN) technology. User access shall be enabled from any location with an internet connection and workstations with industry standard web browsers.
2.22	Logical deletion	The system shall allow deleted records to be marked for deletion but not be removed from the database until they are archived.
2.23	No Client or Thin Client	The system shall support No Client (Browser-based) or Thin Client architecture for both headquarters and field office users.
2.24	On-line Real-time System	The system shall be an on-line, real-time system, while retaining essential batch processing capabilities. Any updates at any location will be immediately available at all other locations.
2.25	Standard Query Language	The system database shall provide standard query language (SQL) capabilities for database queries.
2.26	User-defined documentation	The system shall enable users to incorporate user-defined documentation into system documentation.
Infrastructure		

3.1	Application Servers	The system application servers and database servers shall utilize Microsoft/Microsoft Windows compatible operating system(s).
3.2	Printer Support	The system shall be able to handle locally attached printers as well as network printers. To the degree possible, the system shall use universal printing methods to support the widest range of printing solutions.
3.3	Compatible with State Network Protocols	The system shall be compatible with the State Government Network (SGN) that provides connectivity between state agencies in support of cross-agency mission fulfillment.
3.4	Electronic Signatures and Digital Certificates	The system shall provide the capability to support electronic signatures.
3.5	Output Options	The system shall provide the capability to support Fax, email, PDF and MS Office templates as output options.
3.6	SFTP/FTP File Transfer	The system shall support the use of secure SFTP/FTP to accommodate file transfers.
3.7	Online and Batch Entry	The system shall provide both online and batch entry of data.
3.8	Virtual Servers	The system shall provide technologies that support Hyper-V virtualization for efficient resource control.
3.9	Web Servers	The system shall interoperate with web servers that utilize a MS Windows operating system.
3.10	Web Services	The system shall leverage and interoperate with Web Services where necessary, e.g. external interfaces.
Operations		
4.1	Availability	The system shall be available 24 hours per day, 7 days per week, throughout the calendar year,

		with minimum downtime allotted for maintenance as necessary.
4.2	Backup /Restore/Archive Scheduling	The system shall provide robust scheduling and control functions for automatic and/or manually designated system/database backup, restore, purge and job control schedules, including batch process control and scheduling.
4.3	Remote Monitoring and Administration	The system shall provide the capability for remote monitoring and administration of all applications.
4.4	Response Time	The system shall provide sub-second system response time (internally in the application excluding the network).
4.5	Software Promotion (multiple environment support)	The system shall be available in different environments including development, QA/test, training, and production. The system shall provide a clearly defined promote-to-production process that enforces a strictly defined methodology for movement from development to Quality Assurance (QA) and production, with the ability to “roll back” to a previous version in each of these environments.
4.6	User Counts	The system shall be able to support a population of 2,000+ users (internal users and external parties) and support user growth of an anticipated 3% per year
4.7	User/Technical Manuals	The solution shall provide comprehensive user and technical reference manuals including user-friendly navigation and ‘search for term’ functionality
Security and Audit		
5.1	Access Limits Based on User ID (Role Based Access Controls)	The system shall provide role based access capability in terms of allowing, disallowing, or limiting access or permissions- based on users’

		level of security as established by their user IDs/profiles.
5.2	Access Logging - Audit Trails	The system shall provide the capability to log insert, update, delete and select actions with respect to predetermined system data, including options for logging access for 'view only' & configuration change actions. Predetermined and ad hoc reports will support regular review of such access.
5.3	Active Directory	The system shall support the use of WA State Microsoft Active Directory for client authentication and password control / authentication.
5.4	Attempted/Failed Access Alert	The system shall issue an alert to the end-user and notify the System Administrator after a specified number of unauthorized login attempts. The system will capture/track history of relevant user access activity including maintaining a record of failed access attempts.
5.5	Certificate-based Authentication	The system shall support certificate based authentication for external customers.
5.6	Encryption	The system shall have the capability to encrypt data at rest and during transmission.
5.7	Internal Controls and Audit Trails	The system shall have proper internal controls to provide for separation of duties, prevent fraud and misuse and shall provide audit trails of all system activity to detect any unauthorized activity.
5.8	IT Security Standards	The system shall conform with BIIA IT Security Policy, and Washington State Office of the Chief Information Officer (OCIO) security standards: https://www.ocio.wa.gov/policies/141-securing-information-technology-assets/14110-securing-information-technology-assets.
5.9	Log File Access	The system shall provide the capability to restrict access to logs / files containing sensitive data.

5.10	Maintenance Table Updates	The system administration function shall provide an automated and secure process for updating and tracking system maintenance via maintenance tables or other system based templates.
5.11	Masking of information	The system shall provide for the masking of personally identifiable information (PII) within the development and test environments.
5.12	Mobile devices	The system shall support secure access from mobile devices to on-line customer self-service functions.
5.13	NIST Conformity	The system shall conform to NIST (National Institute of Standards and Technology) Special Publication 800-53.
5.14	Password Management	The system shall provide the system security administrator or other authorized system administrator with the ability to manage user passwords, including establishing and enforcing modern conventions relative to password strength, password change, password reset, and system administrator assigned parameters.
5.15	Secure Access Washington (SAW) integration for access to externally facing portal	SAW will be integrated into the access protocol for external parties (appealing parties, representatives) to access the status of their cases and receive notification, in compliance with WA state OCIO policy.
5.16	Single Sign-On	The system shall provide a single sign-on capability allowing user access to authorized application components without having to log-in separately to installed/integrated modules/features.
5.17	System Restore/Recovery	The system shall provide the capability to recover applications and data within established recovery requirements and timeframes back to the most recent restorable configuration.
5.18	System Vulnerabilities/Event Logging	The system shall identify and address system vulnerabilities and policy violations using a security information and event management tool.

5.19	Table Update Logs	The system shall provide the capability to maintain historical records of table updates, e.g. table update audit trails.
5.20	Third-Party Access and Transactions	The system shall maintain an audit trail of all transactions, including inquiries for pre-determined records, performed by contracted Authorized Third Parties. Third party staff or systems shall have discrete logins.
5.21	Timeouts	The system shall provide the capability to timeout a user session or suspend a user after a predetermined period of non-activity at the workstation or on a device. The solution should also be configurable to maintain session-state beyond default browser or server default session lengths.
5.22	User Identity and Access management	The system shall provide a user identity and access management (IAM) platform.